THE PRACTICAL APPLICATION OF CAMPUS DESIGN GUIDING PRINCIPLES: THE JOHN DE LA HOWE MAGNET SCHOOL OF AGRICULTURE

by

BRANDON JAMES PLATT

(Under the Direction of Cari Goetcheus)

ABSTRACT

How can one of the oldest agricultural education schools in the country be redeveloped into a magnet school of agriculture? What guiding principles can be utilized to preserve the school's historic past while redeveloping it to meet the needs of a comprehensive agricultural education program? John de la Howe School (JDLH) in McCormick, South Carolina, is one of the oldest labor-intensive skills schools in America. The historic school temporarily closed in 2018 to redevelop its campus and reform its vision. This thesis utilizes an amalgamation of the cultural landscape process and the landscape architecture design process while looking at a diverse assortment of background research, community assessment, and case studies to create informed guiding principles. These guiding principles should provide direction on future development, assist in unifying the campus, support the vision of the school, and preserve the integrity of the campus in a way that honors its historic past.

INDEX WORDS: Landscape Architecture, Campus Design, Design Principles, Design Philosophy, Agricultural School, Historic School

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DEDICATION

This research is dedicated to future generations at John de la Howe, School of Agriculture. In the process of completing this work, I have learned that it is something special to return to your home community and give something back. I grew up ten minutes away from the property and knew very little about the rich history and deep purpose the John de la Howe School has consistently tried to maintain in our community. Hopefully, future generations of children will be able to learn and experience how special JDLH really is! I highly encourage any readers of this to take some time for their communities and try to enrich it for future generations as well.

ACKNOWLEDGEMENTS

I would like to thank everyone that has helped me throughout this process! The list is enormous, beginning with the John de la Howe Community, their staff, and the management team. It has been a real pleasure to get to know and work with each of you. A special thank you to my charrette design team, which was comprised of some great friends. Each of you stepped up when I needed help, and I am forever thankful!

Thank you to my committee members for taking the extra time to be there for me and sit in all of our meetings. I honestly would not have been able to finish this without you. Each of you has guided me in the right direction when I needed a push, whether that was physically, emotionally, or intellectually. I have learned so much from each of you!

Finally, huge thank you to Frank Dorn, who has been in this with me for the long haul! I have asked some tough questions, and you have given me the tough answers. I hope this work will provide you and JDLH with a vision for your future!

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CHAPTER 1

Introduction

John de la Howe School (JDLH) in McCormick, South Carolina, is one of the oldest labor-intensive trade schools and orphanages in America established from the will of physician Dr. John de la Howe in 1797 (Figure 1.1). The school officially opened in 1832, housing approximately 250 children at its peak and closed its doors periodically during times of economic distress. Throughout the years, the school's 1,300-acre property (Figure 1.2 and Figure 1.3) has been managed by a Board of Trustees, reporting directly to the state legislature. Because of this management structure the school could repurpose its mission on a few occasions. The historic school temporarily closed in 2018 to do just this, working to redevelop its campus and reform its vision to become a magnet school of agriculture for students in the tenth through twelfth grades. Aiming to reopen in August 2020, the school is moving to become South Carolina's Governor's School of Agriculture. When the school reopens, it plans to accommodate approximately eighty students in its first year. Within five years, the school aims to increase its numbers to 280, offering a full load of comprehensive educational courses with particular emphasis on agricultural education. What are guiding principles that can aid in the development of a magnet school of agriculture in the South Carolina Governor's School Program? How can these guiding principles be applied in the creation of a conceptual design for the campus?

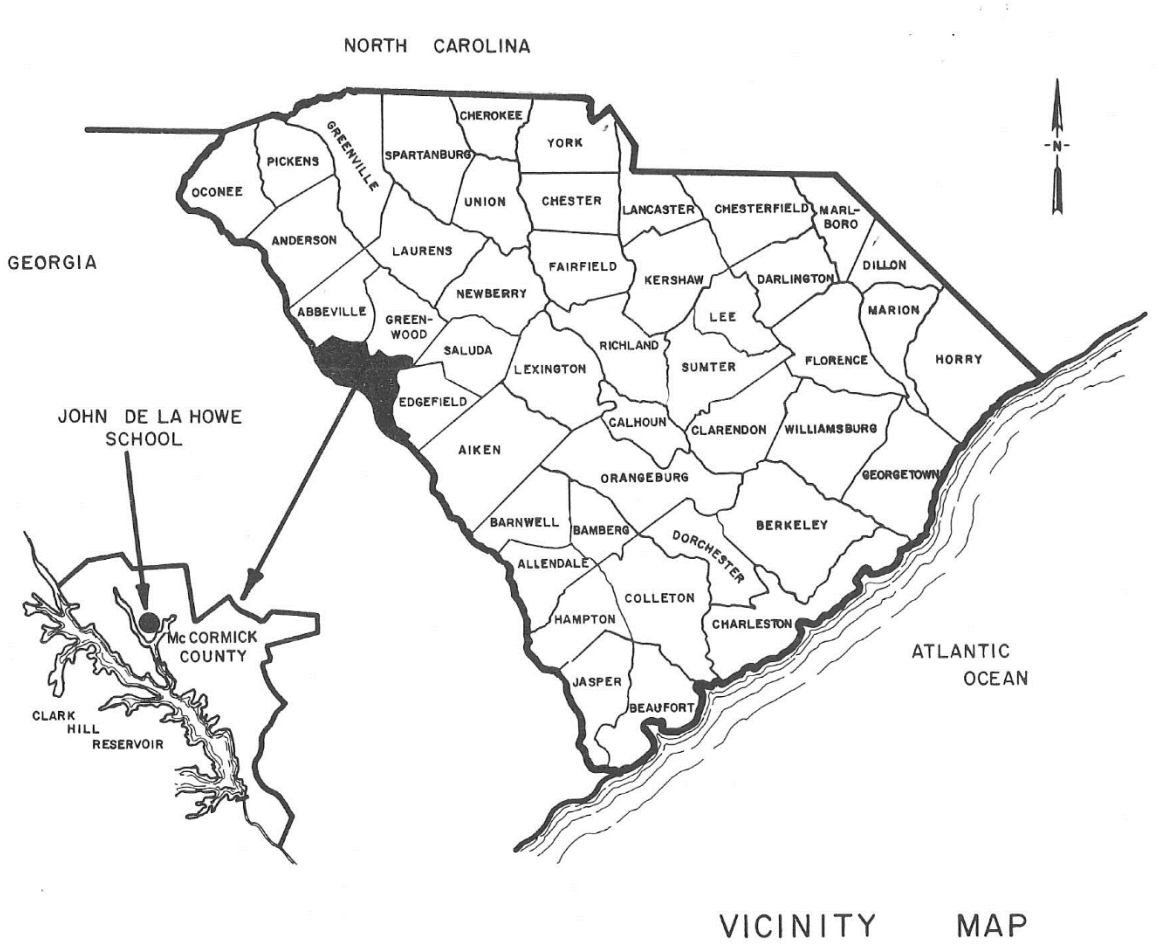

Figure 1.1 – "Vicinity Map" illustrating the location of McCormick County and JDLH School in South Carolina. Source: *Comprehensive Campus Plan: John De La Howe School,* by Jones and Fellers Architects, Engineers, and Planners, Copyright 1967.

Methodology

Answering these questions will require a diverse assortment of background research, community assessment, and the examination of case studies to assist in creating informed guiding principles. The methodology utilized to complete this work will be an amalgamation of the cultural landscape process and the landscape architecture design process. Merging these methodologies will provide guidance for the analysis and evaluation of the campus, assist in the

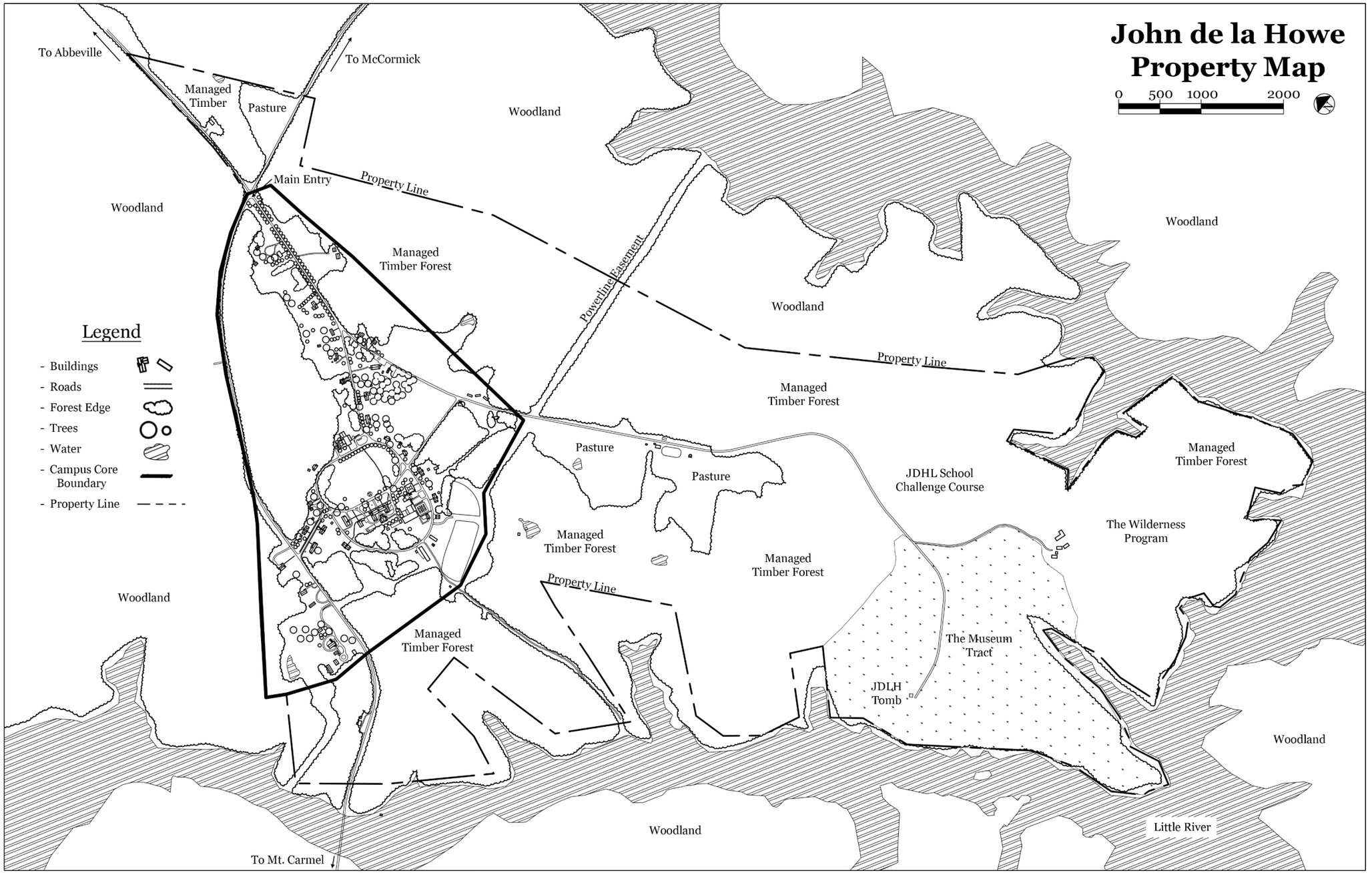

Figure 1.2 – JDLH Property Map: A basemap of JDLH's property and location of the campus core. (Created by Brandon Platt.)

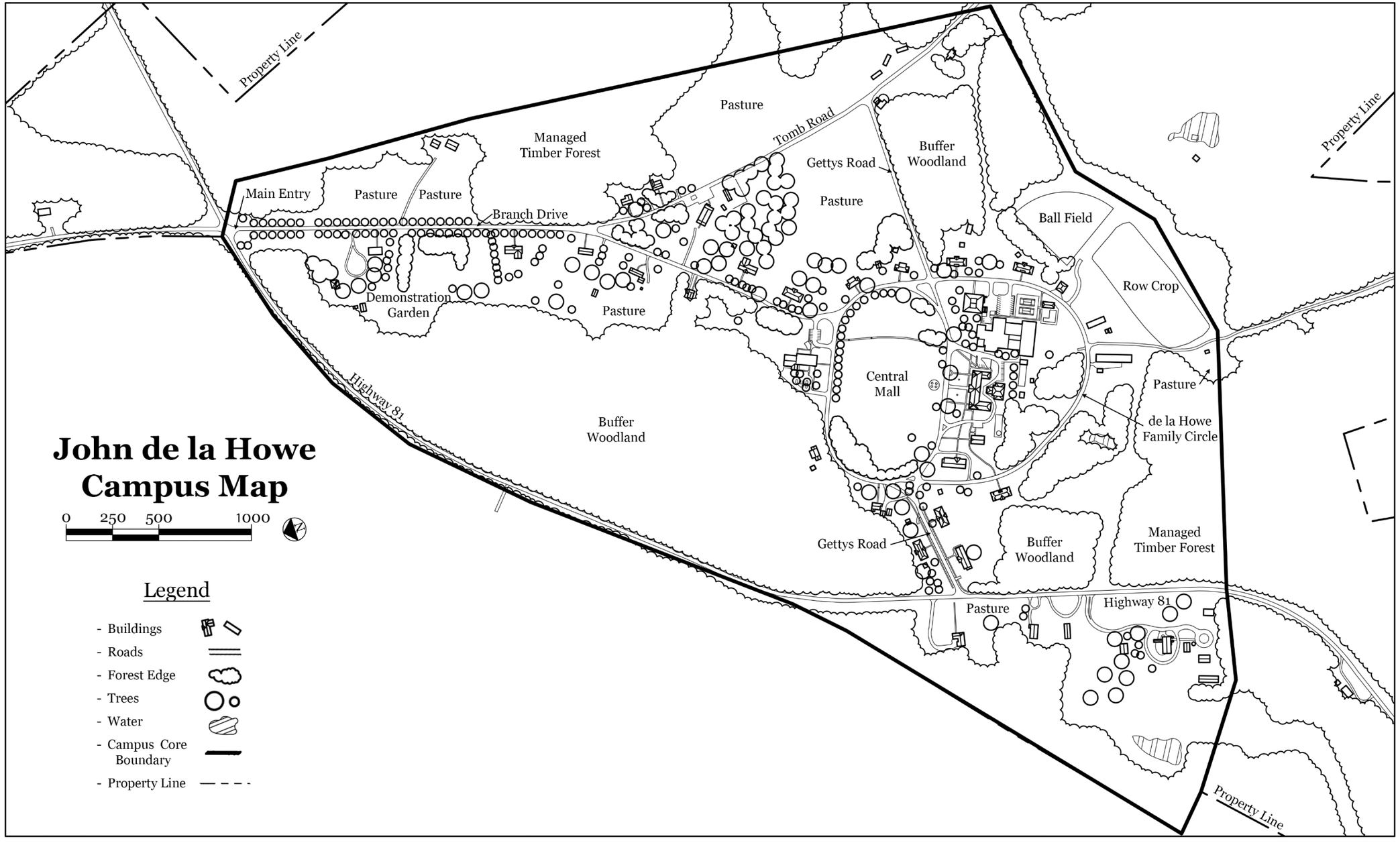

Figure 1.3 – JDLH Campus Map: A basemap establishing the existing conditions and property line of JDLH's campus core of approximately 313-acres. (Created by Brandon Platt)

development of guiding principles, and identify sacred places[1] on campus that need to be preserved for their importance to the school's past while allowing for future growth. This work will briefly look at a variety of topics, including the school's history, the concept of Governor's Schools, agricultural education methodology, and the fundamentals of campus design in order to provide a necessary background for the project (Chapter 2). Examining the school's development and history will allow for a better understanding of the school's original purpose and highlight areas of interest for preservation. Further, understanding the school's history may allow for a smoother transition to its new mission as a Governor's School. As JDLH's mission is to become an agricultural education-based Governor's School, this work will investigate the Governor's School program and agricultural education methodology in order to inform the guiding principles and conceptual design regarding existing precedents. The background research will conclude with an examination of the basics of campus design, focusing predominantly on how to develop guiding principles and design for historic and agriculturally based campuses in rural communities. Included in this research will be an examination of case studies on Governor's Schools and campus plans of various historic and agricultural campuses.

Completing this background research will allow for a comprehensive understanding of JDLH's past and future before moving into a thorough examination of the existing property and campus. The initial notion of JDLH serving as South Carolina's Governor's School of Agriculture was first established in a 2017 Feasibility Study, which offered insight into how the school management chose to reevaluate its future (Chapter 3). To further gather information on JDLH's potential future, this thesis will facilitate a charrette to gain the community's input,

[1] In this thesis the term 'sacred places' refers to locations, structures, buildings, or vegetation on campus that have historical meaning to the John de la Howe School as well as emotional or personal connections to alumni or community members who grew up, worked or are currently working on the campus.

concerns, and desires, as well as craft initial design ideas for the school. Following the charrette, this thesis will then detail the property and campus's existing conditions, before analyzing and evaluating for preexisting design patterns and potential future development (Chapter 4). Each subsection, from the background research to the existing conditions, analysis, and evaluation, will be summarized by developing critical takeaways to consolidate the major points. After reviewing these key takeaways for similarities and critical elements, this thesis will produce a design philosophy and guiding principles that will influence the development of a conceptual campus plan (Chapter 5). The guiding principles will provide direction on future development, assist in unifying the campus, support the vision of the school, and preserve the integrity of the campus in a way that honors its historic past. In order to ensure that these guiding principles accomplish each of these goals, this work will then produce a conceptual design that applies the guiding principles to JDLH's campus (Chapter 6). Finally, to assist JDLH in the preservation and future development of its campus, a list of priorities will be developed to aid the school in its endeavors to become the South Carolina's Governor's School of Agriculture (Chapter 7).

Research Questions

While developing guiding principles for JDLH, it is imperative to recognize what the school has been and what it desires to be in its future. The school carries deep meaning for many who have been influenced by it over their lifetime. There are many questions to consider: With a long history and a large piece of land (1,310-acres), how does one plan for its future land uses without destroying its tangible past? How can one bring that past to the forefront of the design process in a way that honors it and utilizes it when planning and designing to meet the campus' future needs? How can it be linked to the current mission of the school and signify its continued

vision? This work will utilize an amalgamation of the landscape architecture design process and the cultural landscape method of understanding historic places for the development of this thesis. As such, it is necessary to define those two processes.

Cultural Landscape Approach

Cultural landscapes are defined as "historically significant places that show evidence of human interaction with the physical environment."[2] They are anywhere human activity has altered the landscape, ranging from historically designed landscapes to vernacular landscapes. They exist in various sizes and shapes, can differ in the level of human interaction that has occurred, could have been altered by professionals or amateurs, and can even have multiple layers of history and meaning stacked on top of each other. They do not consist of just buildings and structures, but also the "natural elements that grow, mature, erode, move, die and revive once again." [3] Due to the addition of this temporal aspect, it can be a challenge when working to preserve cultural landscapes, an ever-changing medium.

To cope with these complicated variables, the U.S. National Park Service has developed standards in the *Guidelines for the Treatment of Cultural Landscapes*, establishing the Cultural Landscape Report (CLR) process based upon the evaluation criteria and process of the National Register of Historic Places. This process categorizes cultural landscapes into four general types: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. Because these types are not mutually exclusive, JDLH is a combination of a vernacular landscape with areas of designed landscape, such as the area around the Central Mall.

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[2] National Park Service, "Cultural Landscapes," https://www.nps.gov/subjects/culturallandscapes/index.htm (Accessed January 8, 2020).
[3] Arnold R. Alanen and Robert Z. Melnick, eds., "Introduction: Why Cultural Landscape Preservation?," in *Preserving Cultural Landscapes in America* (Baltimore: The John Hopkins University Press, 2000), 3-6.

A historic vernacular landscape is "a landscape whose use, construction, or physical layout reflects endemic traditions, customs, beliefs, or values; in which the expression of cultural values, social behavior, and individual actions over time is manifested in physical features and materials and their interrelationships."[4] In essence, how people utilized the space around them in everyday life. Historic designed landscapes, on the other hand, are defined as "a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition."[5] Generally, these types of landscapes are associated with a significant person, trend, or event and can be seen in examples like parks, estates, and campuses. Understanding the site's category helps determine the site's historic value, which is measured by their association with a historic person, event, style of design, or the potential to reveal information. After establishing why a site is significant, it is essential to assess if it retains its historic integrity, measuring the "degree to which the landscape continues to portray its historic identity and character."[6] Measuring is done through the use of thirteen character-defining features that reveal the integrity of the site when comparing historic conditions to current conditions.[7] This evaluation helps create a comprehensive landscape preservation plan for the treatment of the site's most valuable historic resources. In essence, the process follows a linear and circulative process:

[4] National Park Service, "Cultural Landscapes."
[5] It is difficult to justify that the entire campus was designed, as later examination of the landscape points outs. There are a few buildings that predate the current arrangement and could be justified as being part of a historic vernacular landscape. However, by the 1930s when a majority of the structures were added creating the existing framework, there is evident layout, thereby making it a historic designed landscape. Ibid.
[6] David Schuyler and Patricia M. O'Donnell, "The History and preservation of Urban Parks and Cemeteries," in *Preserving Cultural Landscapes in America,* Arnold R. Alanen and Robert Z. Melnick, eds. (Baltimore: The John Hopkins University Press, 2000), 75.
[7] Ibid, 75.

1. Historical research, to determine site history and establish a base for comparison
2. Detailed inventory of existing conditions
3. Site analysis of character-defining features to determine integrity and significance
4. Development of a preservation treatment approach and selection of a preservation strategy
5. Development of a cultural landscape management plan and philosophy
6. Development of a strategy for ongoing maintenance
7. Documentation of the preservation action undertaken and recommendations for the future

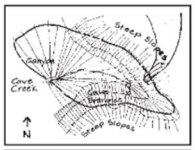
These seven steps are the basis for the completion of a CLR, "a flexible document that can be used for a wide range of cultural landscapes and different management objectives."[8] CLRs help establish grounded goals for research, documentation, inventory, and analysis of a cultural landscape's characteristics and associated features (Figure 1.4 – Landscape Characteristics). Ideally, this process would lead to the development of preservation goals, treatment guidelines, and a historic site management plan.[9] For this thesis, the first three steps – site history, existing conditions, and analysis and evaluation – will be used to identify historically significant landscape features on the JDLH campus. Retention of these historic features will maintain the cultural significance, allowing future additions while honoring JDLH's historic past, unifying the generations that have been through the school with those of the future.

The site history will describe the physical development of the landscape characteristics, and associated features as the campus evolved. It is imperative to include social history, cultural history, and physical history as each may have had a direct influence on the landscape's physical development. Consolidating primary sources, like historic plans, photos, maps, and drawings, and secondary sources, such as particular studies, reports, and recent

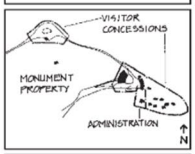
[8] Robert R. Page, Cathy A Gilbert, and Susan A Dolan, *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (Washington, D.C.: U.S. Department of the Interior, National Park Service, 1998), xi.
[9] Ibid, 4.

Overview of Landscape Characteristics

Landscape characteristics include tangible and intangible aspects of a landscape from the historic period(s); these aspects individually and collectively give a landscape its historic character and aid in the understanding of its cultural importance. Landscape characteristics range from large-scale patterns and relationships to site details and materials. The characteristics are categories under which individual associated features can be grouped. For example, the landscape characteristic, vegetation, may include such features as a specimen tree, hedgerow, woodlot, and perennial bed. Not all characteristics are always present in any one landscape. The following landscape characteristics may be documented in a CLR.



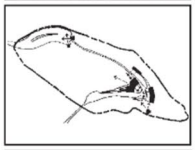
Natural Systems and Features
Natural aspects that often influence the development and resultant form of a landscape.



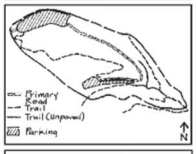
Spatial Organization
Arrangement of elements creating the ground, vertical, and overhead planes that define and create spaces.

Land Use
Organization, form, and shape of the landscape in response to land use.

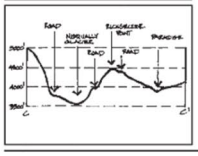
Cultural Traditions
Practices that influence land use, patterns of division, building forms, and the use of materials.



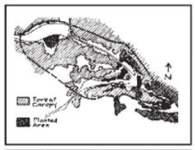
Cluster Arrangement
The location of buildings and structures in the landscape.



Circulation
Spaces, features, and materials that constitute systems of movement.

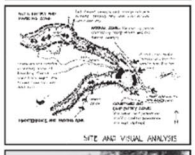


Topography
Three-dimensional configuration of the landscape surface characterized by features and orientation.



Vegetation
Indigenous or introduced trees, shrubs, vines, ground covers, and herbaceous materials.

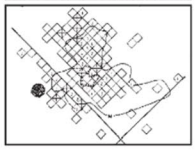
Buildings and Structures
Three-dimensional constructs such as houses, barns, garages, stables, bridges, and memorials.



Views and Vistas
Features that create or allow a range of vision which can be natural or designed and controlled.

Constructed Water Features
The built features and elements that utilize water for aesthetic or utilitarian functions.

Small-Scale Features
Elements that provide detail and diversity combined with function and aesthetics.



Archeological Sites
Sites containing surface and subsurface remnants related to historic or prehistoric land use.

Figure 1.4 – Landscape Characteristics: A chart from the U.S. Department of the Interior's *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* that provides a brief description of landscape characteristics. (Source: *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques*, Robert R. Page, Cathy A Gilbert, and Susan A Dolan, (U.S. Department of the Interior, National Park Service, Copyright 2000), 53.

scholarships, creates a narrative of the campus' landscape development and are all part of the process. Through this historical research, a base of knowledge helps in establishing existing conditions for the cultural landscape. Existing conditions documentation utilizes historical reports, surveys, maps, and aerial photos to identify and describe landscape characteristics that create the cultural landscape. Typically, these two pieces (historical development and existing conditions) are then used to develop appropriate treatment strategies through analysis and evaluation and the creation of guiding principles for treatment.[10] For this thesis, the site history and existing conditions will be utilized as a means of identifying historically and culturally significant locations for JDLH to maintain and preserve during their campus planning process.

To this point, the *Landscape Architecture Graphics Standard* states that "a well-planned approach to design involving a significant historic landscape must have preservation as its primary goal."[11] This goal should be for a well-treated historic landscape and not an entirely new design. However, many sites containing historic features must continue to function in today's society, so balancing history and incorporating contemporary needs can also occur. JDLH must continue to evolve, including integrating new designs to support its future mission and vision. This form of preservation treatment (or sensitive development) is known as rehabilitation, one of four approaches established by the Department of the Interior.[12] Rehabilitation is the most common form of preservation treatment. It is preferred for accommodating repairs and replacements when needed to convey historic character, allowing alterations and additions when

[10] Ibid, 41-52, 56, and 68-69.
[11] Leonard J. Hopper, ed., *Landscape Architectural Graphic Standards* (Hoboken, New Jersey: John Wiley & Sons, Inc., 2007), 140.
[12] The other treatments include restoration, reconstruction, and preservation. Restoration is the process of returning the site or structure to its former appearance by removing features from other time periods or reconstructing missing features from the significant period. Reconstruction is the process of recreating through new construction a non-existing site or structure to replicate its appearance to a certain time in history. Preservation is an attempt to sustain the historic property's existing form through ongoing maintenance and repairs. Page, 82.

needed for use, and having no restrictions on maintaining a period of significance.[13] Using rehabilitation applies fewer restrictions on the site's utilities and function while retaining some historic integrity.

Landscape Architecture Design Process

As noted earlier, the intent is for this thesis to merge the cultural landscape findings with the landscape architecture design process. *Basic Elements of Landscape Architectural Design*, by Norman K. Booth, describes the design process as "a series of analytical and creative thinking steps."[14] His design process has a semi-sequential order, with overlapping steps that blend and repeat, but roughly follow this order:

1. Project acceptance
2. Research and analysis (site visit, site inventory, client interview, program development)
3. Design (functional diagrams, conceptual plan, preliminary design, master plan)
4. Construction drawings (layout plan, grading plan, planting plan, construction details)
5. Implementation
6. Post-construction evaluation
7. Maintenance[15]

Booth establishes that this allows for a logical, organized framework, solutions that fit the needs, proper resources utilization, and informed justification for decisions made. He also states that the process varies project to project depending on the design situation and that this is "an approach, not the approach."[16] James A. LaGro Jr. describes a more recent method in *Site Analysis: A*

[13] Hopper, 150.
[14] Norman K. Booth, *Basic Elements of Landscape Architectural Design* (Prospect Heights, Illinois: Waveland Press, Inc., 1983), 282.
[15] Ibid, 283.
[16] Ibid, 283-284.

Contextual Approach to Sustainable Land Planning and Site Design using "a context-sensitive approach to sustainable planning and development."[17] LaGro details that the design process must be informed, with a thorough understanding of the character and context of the site, and that the site inventory must have physical, biological, and cultural pieces. LaGro defines these cultural pieces to include land use, legal standing, utilities, circulation, historic importance, and sensory. His inclusion of land use, legal standing, and historical importance are of particular interest and are pertinent throughout this work. The remainder of his process concludes with site analysis, the design phase, and the implementation phase. The design phase is structurally loose, being an iterative process, slowly progressing and redefining conceptually to a sustainable site design "that adopts the project program elements to the unique features of the site."[18] Ultimately, both design processes merge with the CLR process stepping in at the existing conditions and site analysis phases to assist in the creation of guiding principles in the development of a conceptual plan for JDLH.[19]

[17] James A LaGro Jr., *Site Analysis: A Contextual Approach to Sustainable Land Planning and Site Design* (Hoboken, New Jersey: John Wiley & Sons, Inc., 2008), ix.
[18] Ibid, 14-16 and 19.
[19] While there are numerous landscape design process models to choose from, this work selected Booth for his easy and logical layout of the design process and LaGro for his inclusion of cultural importance to the aspects to site inventory. There are various other descriptions of design process that could have been used in this work. Also, it is important to note that this thesis will not progress beyond the development of guiding principles and a preliminary conceptual design meant to illustrate the application of the guiding principles.

CHAPTER 2

Background Research

This work will look at a variety of topics meant to inform the development of guiding principles to comprehend the new mission and vision of JDLH and how it is going to successfully transition into a magnet school of agriculture. Consolidating the background information on de la Howe and the school's history from key sources will help to provide a basis for de la Howe's intent when bequeathing the property to become a school upon his death. The more recent background knowledge on the campus will be derived from working directly with the facilities management staff who have direct knowledge or available sources in records. Unfortunately, the research has indicated little regarding digital historical records, maps, or aerial photos of the area, and similarly, there is little contemporary information on the property. The information on Governor's Schools is from the National Conference of Governor's Schools or each school's particular webpage, which is supplemented with their accountability reports, curriculum standards, and student handbooks. The agricultural education section will briefly cover the concept of the three-tiered educational system that today dominates a majority of agricultural education programs. That section will attempt to address background information on proper techniques and space requirements for an agricultural program, emphasizing a basic understanding of the types of space requirements needed and justification for those spaces. The final section will examine the basics of campus design, including the examination of specific case studies. While JDLH is not a college or university, its historic background, size, and future use resemble a college campus's activities and space requirements.

Background Research: The History of John de la Howe Property

The Man (1717 – 1797)

"An enigma who is destined to remain shrouded in mystery."[20]

De la Howe's origins are fuzzy at best. Born in 1717 in Northern France, either in Flanders, Holland, or Hanover, he trained as a doctor before arriving in Charleston, South Carolina in 1764. Cautious due to his advanced age as a new arrival to the Americas, de la Howe was wary in his business deals, choosing to stay close to Charleston and the Jacksonborough area in his first decade. Regardless, he was set "to build a life of prosperity in a new land free of the political turmoil that had plagued the Europe of his day."[21] As such, in April 1767, he wed Ann Walker Boyd, a widow with land and slaves in the area. On March 21, 1768, de la Howe received a land bounty grant from the English Crown for 400 acres of Carolina backcountry and what would eventually become a small portion of the JDLH property today (Figure 2.1). From 1768-1785 de la Howe purchased acreage along the Wateree River, the Savannah River, 1,405 acres in Hillsborough, a home in Jacksonborough, and property in the New Bordeaux area (adjacent to school property in present-day McCormick, South Carolina). By 1785, through his marriage and using the profits of his successful medical business, de la Howe's total acreage would reach above 3,000 acres.[22]

[20] The Bicentennial History Committee of John de la Howe School, *Still Caring, Still Dreaming: The First Two Hundred Years at John de la Howe School* (McCormick, South Carolina: The John de la Howe School, 1996), 5.
[21] Ibid, 1, 7, 10, 12, and 14.
[22] Ibid, 1-2 and 16.

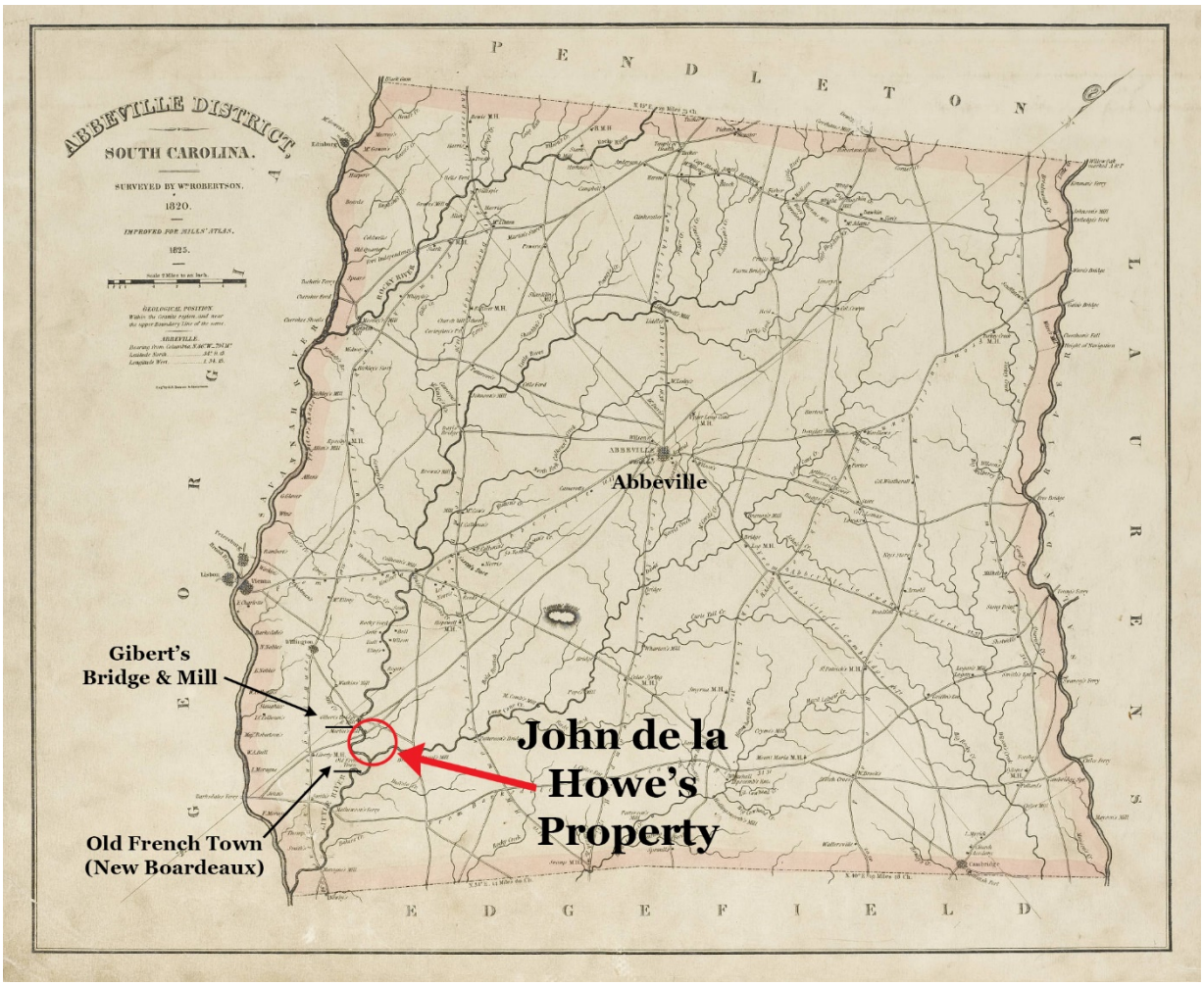


Figure 2.1 – Abbeville District Map: The map depicts the location of the Lethe Plantation prior to de la Howe's death and the location of the future JDLH School. Created in 1820 and improved in 1825, the map does not have the property depicted; however, the property was in the transition period before the school was physically created. Shown are Gibert's Bridge and Mill and the Old French Town (New Bordeaux), which neighbored de la Howe's property. Source: "Abbeville District, South Carolina," *South Carolina Department of Archives and History,* by Robert Mills, 1825, retrieved from https://digital.tcl.sc.edu/digital/collection/rma, Copyright 2009. (Annotated by Brandon Platt.)

It was during this time in 1774, that de la Howe moved, without Ann, from Charleston to his Lethe Plantation, near New Bordeaux. Here he was appointed Justice of the Peace for the Long Cane area and eventually the same for the Ninety-Six area. During the American Revolution, things were turbulent for de la Howe. He treated wounded at Lethe in 1776, before returning to Jacksonborough in 1777. In 1780, he was imprisoned by the British "on a double suspicion and charge of his attachment to the American interest" for a brief time before being

paroled.[23] Shortly after his parole, he met Rebekah Woodin while in Charleston. The nature of de la Howe and Rebekah's relationship is unclear; ideas vary from a close friendship to a mistress, though there is little evidence that supports any one of these over the other. However, in 1785 de la Howe returned to Lethe with Rebekah, where she stayed until her death on October 4, 1788. Upon her death, she was entombed on the property and left her property to de la Howe, including property in the Edisto area. The importance of mentioning Rebekah is the influence she may have had on de la Howe. In Charleston, she ran a young ladies finishing school, and her influence with education may have been one of the factors that led to de la Howe's final deeds in his will.[24]

Another influence may have been an article in late 1787, that discussed a plan for a practical education for rural agricultural people. In the 1770-1790s, manual labor education was a big question for a country trying to start anew with a majority of its land operated as rural farms. At the time, education was focused solely on academic endeavors, like mathematics and philosophy, which was of little help to rural children, who had limited access or need for such topics. Instead, this article discussed manual labor training that would teach rural children essential farming skills. This article may have been a massive influence in the drafting of de la Howe's will in September 1796, which established a farm school on the Lethe Plantation.[25] How de la Howe came across this article is unknown, though it may have been through his friendship with Pierre (Peter) Gibert, a neighbor and community leader. Gibert was the local school teacher, and though much younger, de la Howe and Gibert were close friends; de la Howe trusted him as he eventually left Gibert to manage the Lethe Plantation on his death. For the remainder of his

[23] Ibid, 2-3.
[24] Ibid, 3-4 and 36.
[25] Ibid, 4 and 146.

years at Lethe, de la Howe lived a rather comfortable lifestyle improving Lethe so that it "was the most elaborate plantation in the Abbeville Districts in the 1780s."[26] On January 2, 1797, de la Howe died and left instructions to be entombed at Lethe next to Rebekah, leaving "his estate to found a school for poor children."[27]

Key Takeaways:

- De la Howe understood the need to provide a constructive education for youth in a rural community as well as the flexible use of his property to support a school for orphaned children.

The Will (1797 – 1832)

> "…to make a philanthropic gesture by providing that his estate be used to create a school for some of the poor children of the county…"[28]

De la Howe's will specifically lays out the creation of "an agricultural or farm school… for ever both educating in conformity to said Plan and also lodging, feeding and uniformly clothing twelf poor boys, and twelf poor Girls, whose Parents, or who themselves have resided in Abbeville County aforesaid not less than Six years, and actually continues to reside within the campus or extent of said County; but that orphan children shall have the preference."[29] His will has no restrictions specifying children of any type or even any religion, feeling the need to "teach them in general, plain, and practical parts of religion and morality" with an aim "to raise useful citizens."[30] Pierre Gibert is named the Executor of the Will and was to assume management of

[26] Ibid, 26 and 55.
[27] Ibid, 4 and 40.
[28] Ibid, 41.
[29] Ibid, 92.
[30] Ibid, 93-94.

the property until the Agricultural Society of South Carolina, in Charleston, could assume control of the property.

Unfortunately, naming the Agricultural Society of South Carolina, located 200 miles or ten days travel away, would prove to be problematic. At the time, the Agricultural Society had little interest in the backcountry New Bordeaux property. This lack of interest left Gibert to assume many of the responsibilities; however, between teaching, managing his property, and raising a family, there was little time to manage the Lethe Plantation. Further complicating the school's creation was the lack of financial capabilities to fund the school's physical structures, despite the confidence de la Howe displayed in the writing of his will. He believed his assets were enough, leading to questions and accusations of mishandling or embezzlement of his assets just after his death. Regardless, on October 15, 1798, the estate was found "insufficient for the purpose designated by the Will, that the lands were inferior and unproductive, and the personal estate far inferior to the sum expected to have been derived from it."[31]

As a result of these complications, in 1805, the Agricultural Society of South Carolina surrendered the estate's trust to the state legislature, who appointed local delegations to manage the property. Under Pierre Gibert's continued supervision, these delegates constructed the first school sometime between 1806-1826, though the structure is uncertain.[32] This uncertainty suggests that the original Lethe Plantation site was abandoned around 1806, allowing this section of the property to mature into an old-growth forest known today as 'The Museum Tract.' This 135 acres of Loblolly and Short Leaf Pines was added to the National Register of Natural

[31] Ibid, 71-74.
[32] It is suggested to be near Gibert's mill and home site as "a two-story frame structure with a porch around two sides." Ibid, 49-50.

Landmarks in 1976 and certified by the Society of American Foresters Natural Areas Program.[33] As such, it has never been plowed and preserves the site of what remains of the original Lethe Plantation. These factors allowed the estate to fall into a state of neglect as various property managers, through the next few decades, worked to sell off portions of the excess estate (except the 1,500 acres for the school). This neglect resulted in a delay in the opening of the school until 1832.[34]

Key Takeaways:

- The property was willed to become an agricultural-based farming school for children of the area.
- The financial situation of the school delayed the construction of the school, and through perseverance, the property can work as a school.

The Old Site (1832 – 1919)

"…the estate was insufficient for the purpose designated by the will…"[35]

By 1832, the delegates made little progress towards the creation of a school and were replaced by a Board of Trustees. Construction began on buildings meant for the school on what is now the northern section of the campus property near Highway 81 and the current school's main entrance (Figure 2.2).[36] Lethe Agricultural Seminary opened in 1832, with no problem attracting or maintaining twenty-four students. Students worked in an apprenticeship fashion doing manual labor tasks for half their time and attending classes with the other half. The farm

[33] *John de la Howe School: The de la Howe Story as Told by Its Trees* (McCormick, S.C.: John de la Howe School, 1999), 18.
[34] Ibid, 73.
[35] Ibid, 49.
[36] The Bicentennial Committee, 50, 56, and 89.

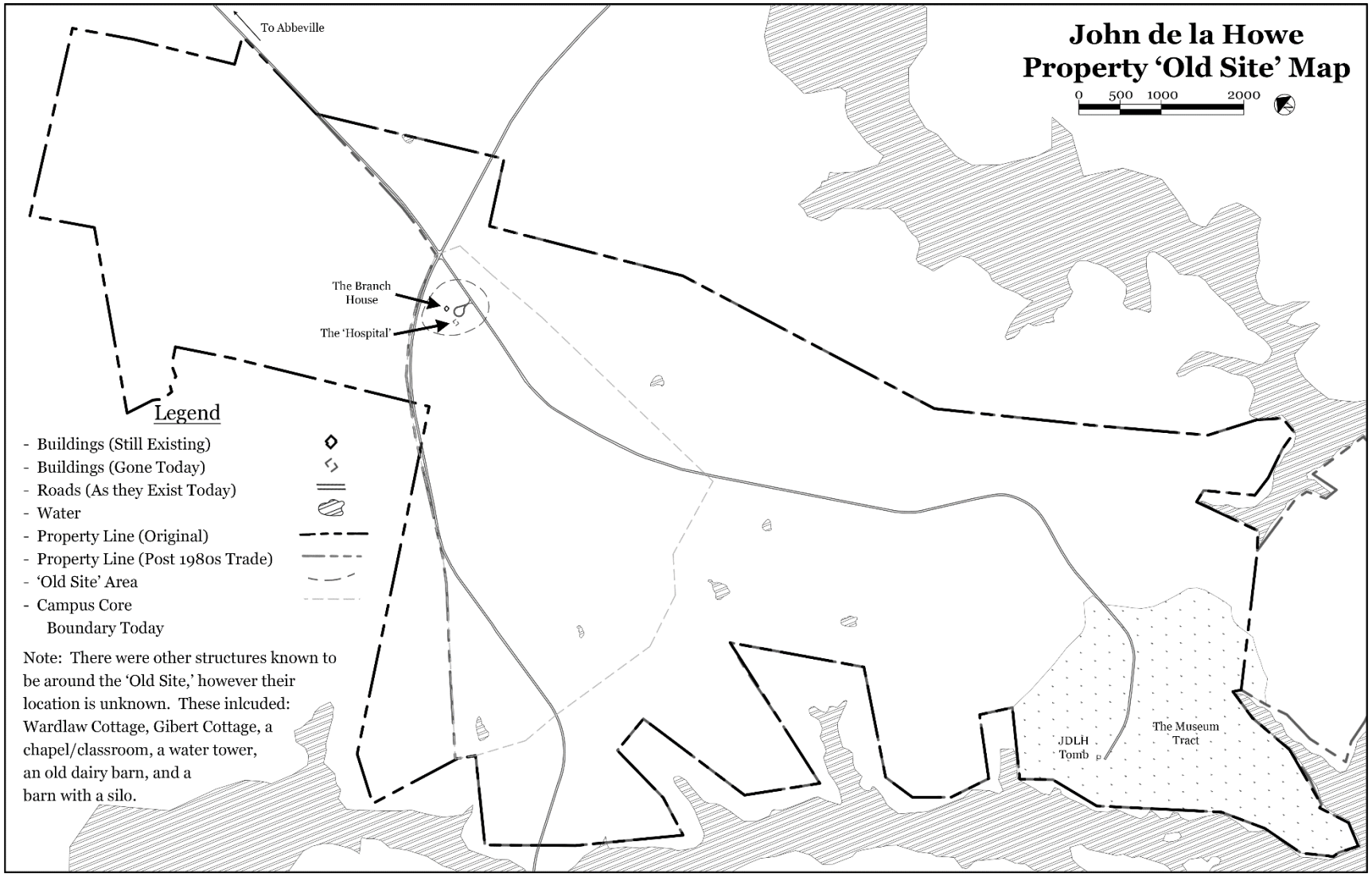


Figure 2.2 – JDLH Property ' Old Site' Map: This map illustrates the original boundary of the school' s 1,500-acres and the location of the first school site started in 1832. The only building remaining from this time period is the Branch House, however JDLH has some photographs of other structures that were also on the site. Of these, only the old infirmary' s (known as the ' hospital') location can be roughly identified. (Created by Brandon Platt)

was very much a typical South Carolina backcountry farm, attempting to be as self-sufficient as possible, growing a variety of crops and handling livestock. In 1842, things at Lethe were so successful the trustees sent a petition to the General Assembly requesting permission to sell some of the 1,500 acres. This request was promptly declined by both houses under the pretenses that the will specified it remain indivisible. The Seminary's prosperity continued with no changes to the farm's management or governance during the Civil War. However, in 1867 the entire state suffered from severe crop failure, and as surrounding farmers were recovering from the war, prosperity at the school began to suffer. These troubles continued until December 17, 1881, when the school was authorized to close to conserve funds with the directive to reopen whenever the trustees judged was sufficient. It would be thirteen years, in 1894, before they could, and by this time, they were competing with public schools for attendance. Between 1881-1894, the farm slowly recuperated, and in order "to take on a more modern image of an orphan home and school," new brick buildings replaced old structures.[37] Not much is known about when other structures were added to the site before 1894, however, included in the new construction was one brick cottage with twelve rooms, one brick cottage with four rooms, and a chapel that served as a classroom as well.[38] These new additions joined the existing Branch House, a water tower, an old dairy barn, a barn with a silo, and an infirmary known as the 'hospital' to complete the structures known to exist in the 'Old Site' (Figure 2.3).[39] Despite these updates, the school closed again in 1911 due to a lack of students, allowing the Trustees to modify the scope and nature of the Seminary's mission.[40]

[37] Ibid, 157-158, 161-162, and 165-166.
[38] Ibid, 166.
[39] The John de la Howe School, 7.
[40] The Bicentennial Committee, 167.

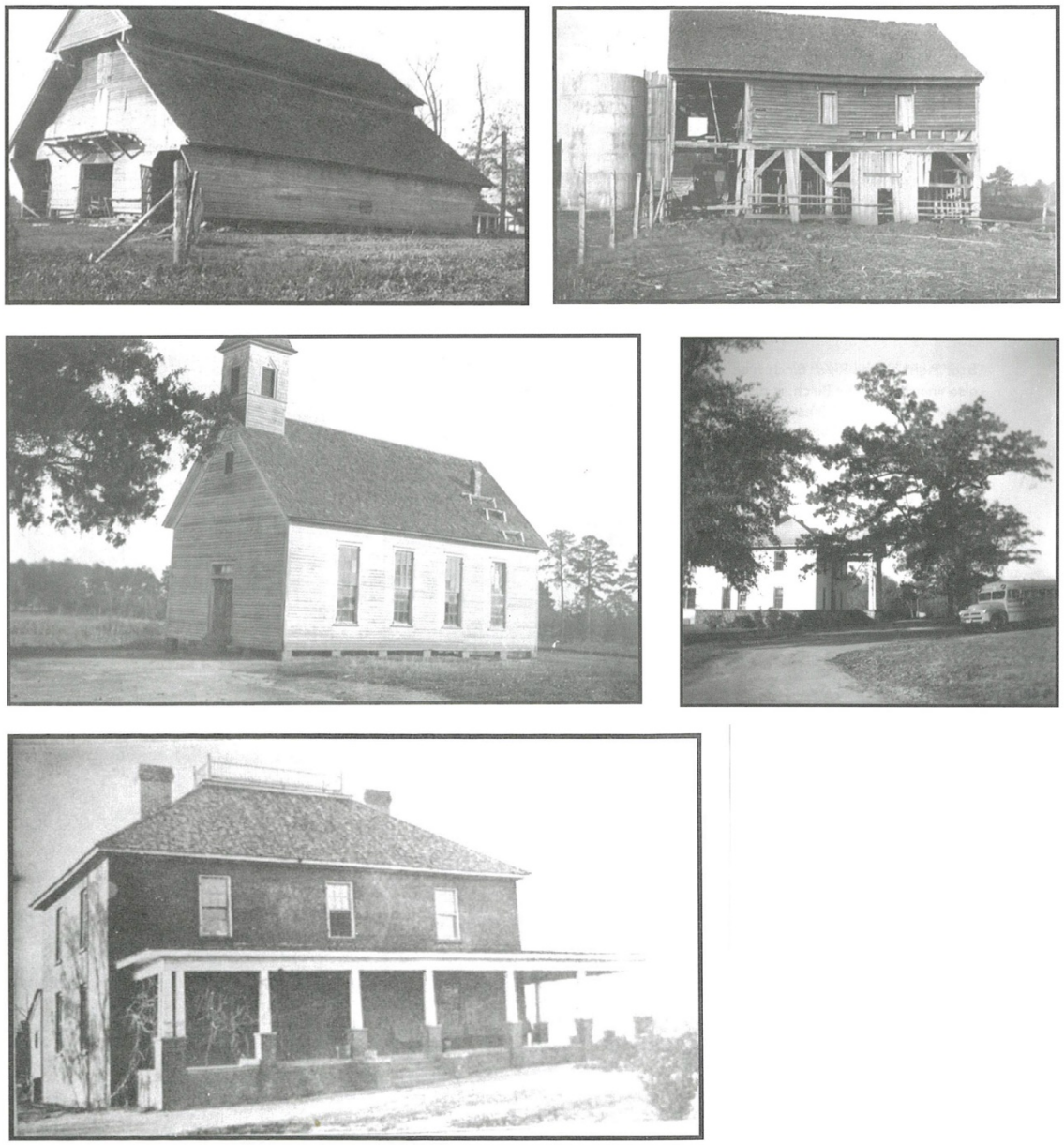


Figure 2.3 – ‘Old Site’ Structures: Images of known buildings on the ‘Old Site.’ The Old Dairy Barn (Top Left), a Silo and Barn (Top Right), the School Chapel before the 1920s (Middle Left), the Old Infirmary known as the ‘Hospital’ (Middle Right), and Wardlaw Cottage (Bottom). Notice the open space around the buildings and the tree line well behind the structures. The barns and silo may have been located near the pastures, which is evident by the fence posts in the images. Source: *John de la Howe School: The de la Howe Story As Told by Its Trees*, by John de la Howe School, McCormick, SC, Copyright 1999.

The trustees understood that the school did not meet the contemporary needs of their community; however, if the school ceased to exist, it would revert to the de la Howe's heirs (of which there were none). This dilemma opened the door for altering the mission "to make the school more responsive to the needs of a different society in a different time."[41] This reorganization helped convert Lethe Agricultural Seminary into a state agency that could serve the state more broadly. In 1918, the school became a state agency accountable only to the legislature, opening its doors to the entire state, and removing the strict twenty-four student enrollment. With this change came a new name: The John de la Howe Industrial School.[42]

Key Takeaways:

- The Branch House (c. 1900s – 1910s) is the oldest remaining structure on campus and the last of the original school site's structures.
- The school chose to alter its mission to include much of the original purpose of de la Howe's Will and be responsive to the need of the community it serves.

The Present Site (1919 – 2020)

"A new phase of Dreaming that had broadened the school's scope to include the entire state of South Carolina."[43]

Reopening in 1919 under the state legislature's direct supervision, the JDLH Industrial School became known for assisting with child welfare, which led to pleas for admission across the state. To accommodate the massive inflow of children in need, the school expanded to its current location approximately one mile south of the 'Old Site,' along present-day Branch Drive.

[41] Ibid, 168.
[42] Ibid, 167-168.
[43] Ibid, 169.

Despite this move, many of the earliest buildings continued to be used and even given official names in 1925; the larger brick building became Wardlaw Cottage, and the smaller brick building became Gibert Cottage.[44] Sadly, what remains of the pre-1920s school site are a few obscure foundation stones of the chapel just north of the Branch House, the Branch House which is missing its original wrap-around porch), and a large ditch that marks the old entrance road.[45]

As time progressed, the move to the new site located south of the 'Old Site' necessitated the first of new buildings to be constructed; they were built out of granite from a local quarry (Figure 2.4 and Figure 2.5). The first building was the Industrial School building; unfortunately, it was destroyed by fire in 1929 and replaced with the current granite Family Center building in the 1930s. Other granite structures assumed to have been built during this time included a water-powered electric plant, de la Howe Hall, a gymnasium, 'The Dairy Barn' and a storage building. Away from the campus, on Little River, an electric power plant and dam were built in the 1920s and supplied power to the community until the state flooded the river in the 1960s-1970s.[46] Today, that foundation is still visible in the river. De la Howe Hall's original construction started in 1926, eventually serving as a dormitory, kitchen, auditorium, and administration building.[47] 'The Dairy Barn' and a tunnel for cows to pass under Highway 81 were completed in 1931. Additional smaller barns appeared throughout the campus as Federal Works Progress Administration projects in the 1930s.[48] The granite gymnasium served the school's sporting needs starting around the 1930s until it was demolished in the 1970s to make way for new

[44] Ibid, 176.
[45] The John de la Howe School, 5-7.
[46] Ibid, 8-10.
[47] The John de la Howe School,11 and The Bicentennial Committee,176.
[48] The Federal Works Progress Administration was a work program for unemployed people during The Great Depression created by Franklin D. Roosevelt in 1935. The program included the construction of roads, bridges, parks, airports, and buildings, including some of the barns at JDLH. Source: "Works Progress Administration," by Editors of Encyclopaedia Britannica, Accessed March 3, 2020, https://www.britannica.com/topic/Works-Progress-Administration, Copyright 2019. The John de la Howe School, 10.

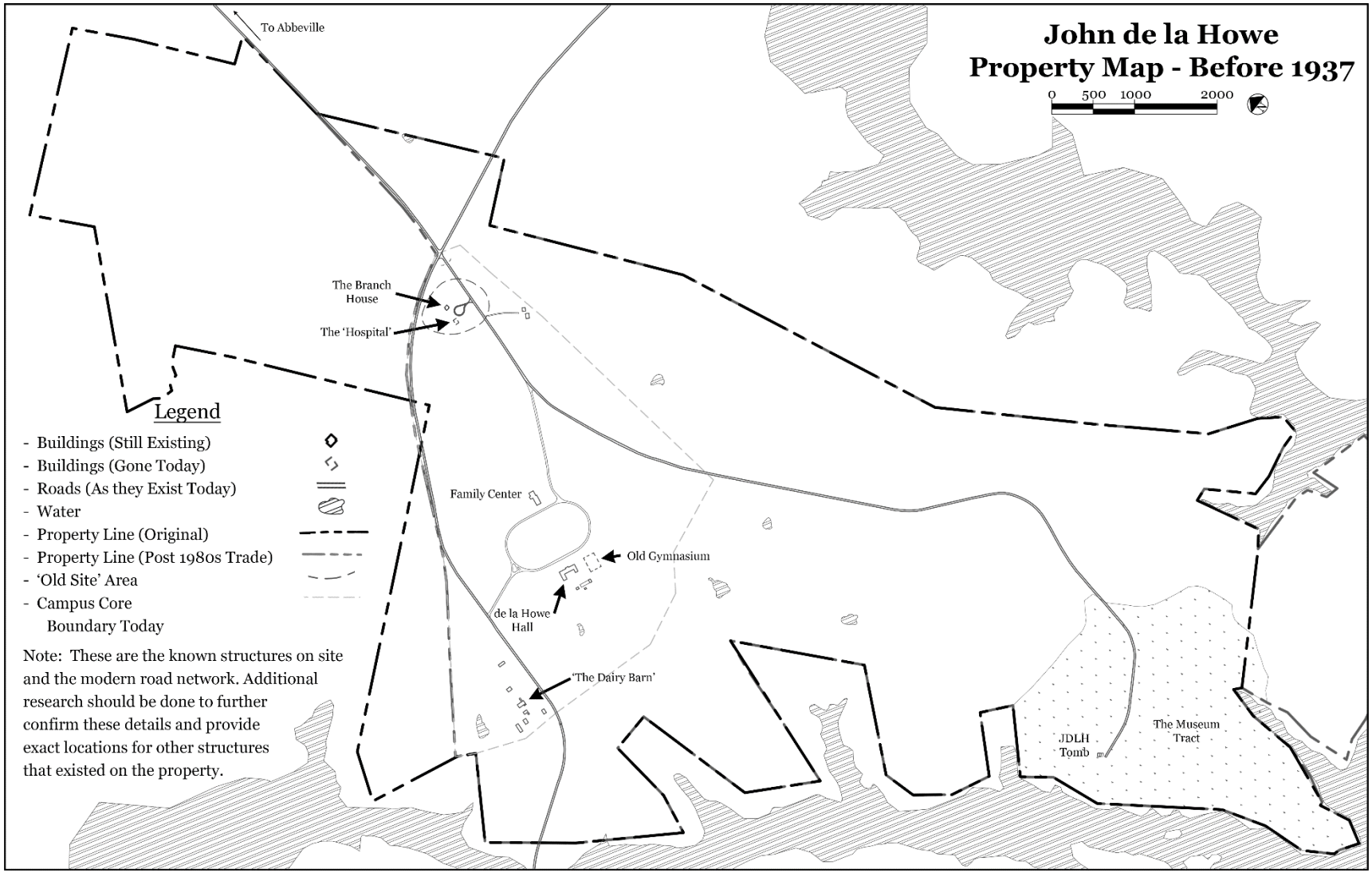


Figure 2.4 – JDLH Property Map – Before 1937: This map illustrates the development on campus before the fire that burned the original de la Howe Hall in 1937. The original Industrial School Building has already been replaced after it burned in 1929 with the building that would become the Family Center. The barns on the property were built as a part of the WPA program. The location of the Old Gymnasium, which was demolished in the 1970s, is a rough estimate based upon available maps. (Created by Brandon Platt)

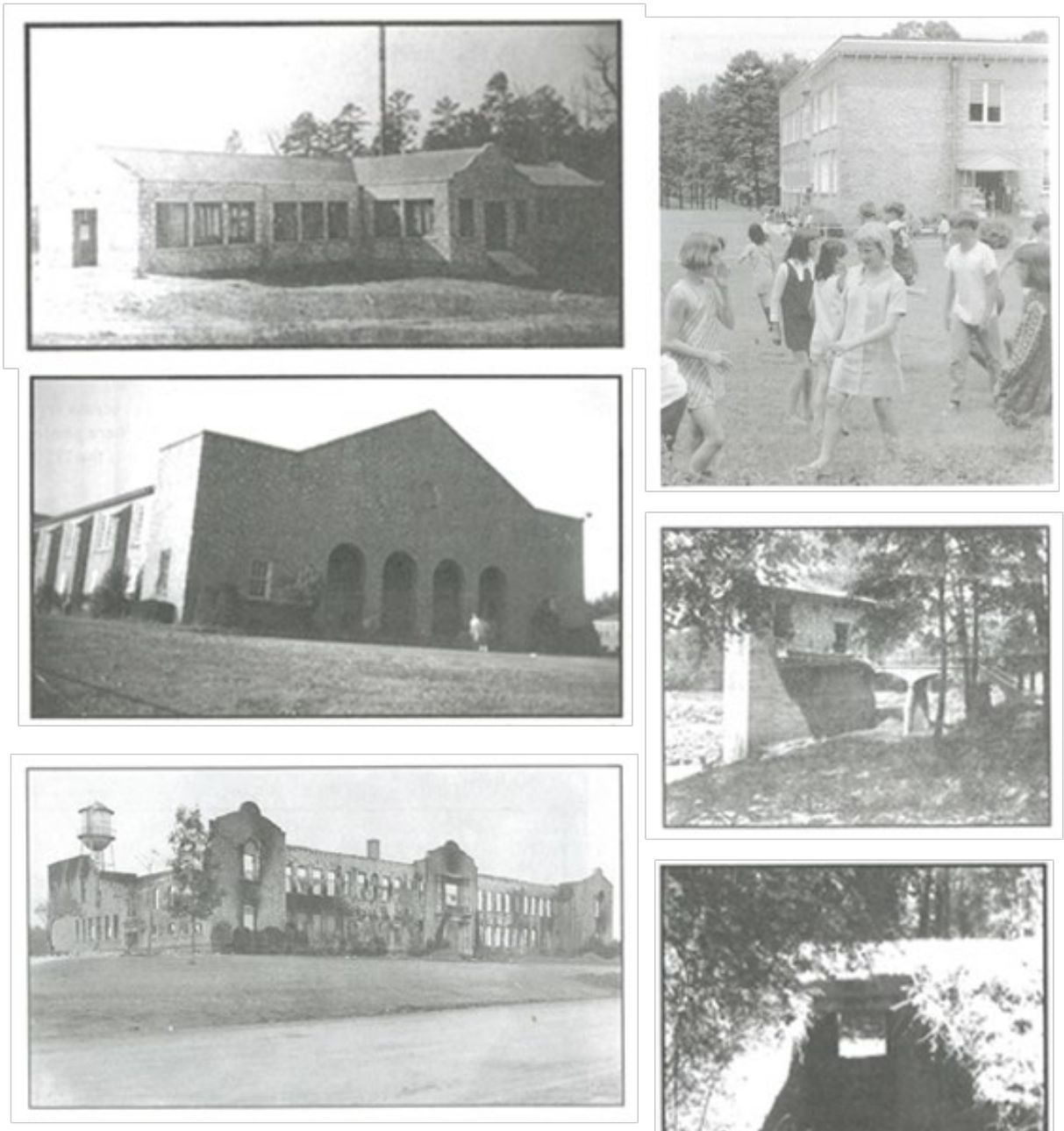


Figure 2.5 – Pictured are the Industrial School destroyed by fire in 1929 (Top Left), the Family Center which replaced the Industrial School (Top Right), the Old Gymnasium demolished in the 1970s (Middle Left), the water-power plant to which only its foundation remains (Middle Right), the original de la Howe Hall that burned in 1937 (Bottom Left), the cow tunnel (Bottom Right), and not pictured 'The Dairy Barn.' Granite structures built in the 1920s – 1930s on the existing campus site and the cow tunnel under Highway 81. Again, notice the open space with the tree line well behind the buildings. In the foreground of the de la Howe image, notice the dirt road, one of the first images of a road network in the area. Source: *John de la Howe School: The de la Howe Story*, by John de la Howe School, McCormick, SC, Copyright 1999.

facilities. Entering the 1930s, the school served over 210 children while financially struggling. Complicating the situation further was another disastrous fire that burned de la Howe Hall on November 7, 1937. After the fire, many of the children were taken in by the local community; however, there was simply not enough space for them all. As a result, some alumni recall army barracks with bathhouses and showers being constructed in the central mall area to house students.[49]

In order to compensate for the loss of de la Howe Hall, the school received approval from the legislature for the construction of nine cottages around the center mall. Along with these cottages came another name change from the JDLH Industrial School to de la Howe State School. They became a "social institute tak[ing] children who need[ed] temporary care and training away from their own homes and communities," no longer serving as an educational institute and not classifiable under any agency.[50] De la Howe Hall was rebuilt in 1939 using brick to match the new cottages. During this time, the school was also given a pool and a chapel by Mrs. A. Foster McKissick.[51] As time progressed, the school added three cottages in the late 1960s and early 1970s as well as faculty housing along Branch Drive leading to the central mall.

In 1967, while at least two of these cottages were being added, the school worked with Jones and Fellers Architecture – Engineering – Planning to produce a master plan for the future development of the campus. Interestingly, they emphasized that when previous building additions were added, they were "being placed haphazardly around the campus without any direct relation to planning for their function, economy, health, safety, comfort, and future use."[52]

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[49] The Bicentennial Committee, 202.
[50] Ibid, 11 and 182-184.
[51] Ibid, 182.
[52] Jones and Fellers, Architects and Engineers, *Comprehensive Campus Plan: John de la Howe School* (Augusta, GA: Jones and Fellers, 1967), 5.

The school lacked any land planning, merging uses in a spread type pattern, "which puts a burden on the pedestrian since most traffic on campus (was) by foot."[53] Of particular interest from this work is the campus "Building Age Map," which illustrates a rough dating of the structures on campus (Figure 2.6). This map depicts the campus's first-known layout in plan view with the current day arrangement of streets, sidewalks, and vegetation clustering. It confirms the construction of three additional cottages between 1966-1968.[54] It also confirms the construction of the WPA barns, chapel, gymnasium, nine cottages, infirmary, de la Howe Hall, Tech School building, president's house, a few faculty houses, and the superintendent's house in the 1930s. On the 'Old Site' location next to the Highway 81 entrance, the 1967 map indicates that the majority of the structures from before the 1920s are gone. The old infirmary (the 'hospital') and the Branch House are all that remains. Few structures were added between 1940-1965, with a majority of them being faculty housing.[55]

Jones and Feller's analysis details other aspects of the school and its condition in 1967. At the time, the school was averaging approximately 218 students housed in the nine cottages, with a few living in the new infirmary behind de la Howe Hall. In addition to the student cottages, there were eleven houses and three mobile homes for faculty housing. Each of these structures were laid out along the street with varying setbacks between 60-80 feet along the main entrance road and 40-60 feet around the central mall. The streets themselves were paved in adequate condition and capable of handling vehicular traffic, though none were named or marked with directional signage. Parking seemed to be haphazard at the time, as there were no designated parking, curbs, or gutters. Recreation spaces, like playgrounds for the students, were in unkempt

[53] Ibid, 5.
[54] Numbers 4-Hester and 5-Hessie Marrah Cottages were under construction at the time and Nickles Cottage is absent on the map, being located west of number 29.
[55] Jones and Fellers, 28.

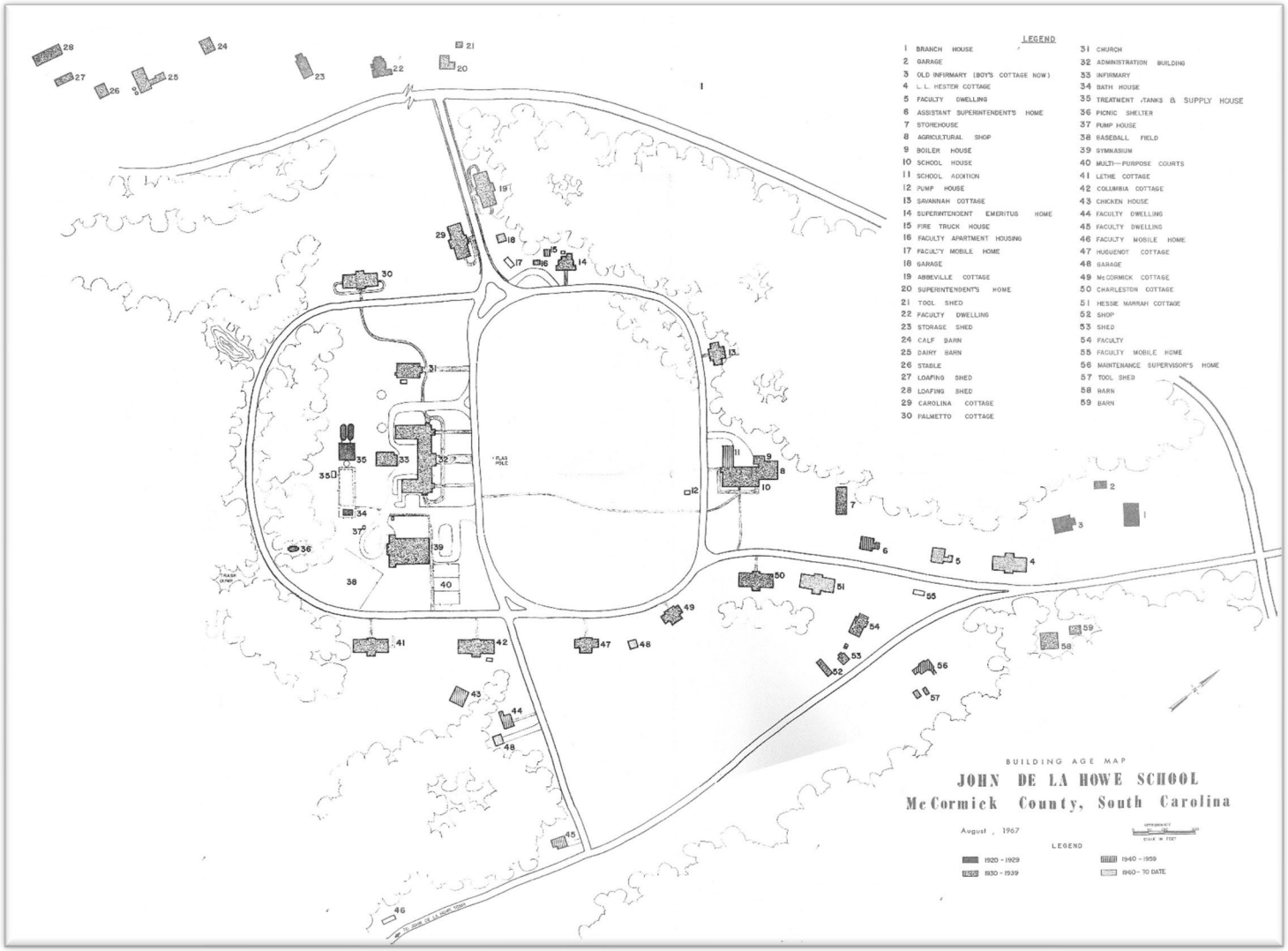

Figure 2.6 – Jones and Fellers Building Age Map of JDLH School which establishes the earliest building dating attempts. Completed in 1967, Hester and Hessie Marrah Cottages were under construction and work on Nickles Cottage had not begun yet, not appearing on the map. Source: *Comprehensive Campus Plan: John De La Howe School,* by Jones and Fellers Architects, Engineers, and Planners, Copyright 1967.

conditions, and the park area near the pool had "a very pleasing setting and natural potential, although it (was) in a very bad state of repair."[56] The firm's recommendations offered a plan for the campus that would provide for a long-range school program to serve social, educational, and developmental needs (Figure 2.7). To summarize their recommendations, they attempted to cluster existing and future housing as well as similar functions of the campus to minimize cross-campus traffic and optimize efficiency. Of the various recommendations suggested, it appears that in the 1970s, the school administration did make some of these changes, adding a few more houses for faculty and a laundry building, though not in the recommended locations. They also completed the construction of the main entrance signature brick welcome sign on Highway 81 near the Branch House. Of particular interest is their recommendation for the central mall, which called for irregular sidewalks for cross-campus pedestrian movement. This part of the plan, like most of it, never came to fruition.[57]

After the 1970s, a few buildings were added for faculty housing on the outskirts of the campus area, while the main campus area saw a few additional changes. During this time, one decision was the removal of one of the original 1930s granite structures (the gymnasium) to make room for a new cafeteria and school building that included classrooms, a library, a recreational area, and a new gym. After 1970, other additions included a new infirmary, a maintenance shop, tennis courts and pool, and a greenhouse. In the early 1980s, the school made a land swap with the U.S. Forest Service on a three to one ratio, giving a portion of their land north of Highway 81 for a portion of land adjacent to "The Museum Tract" along the Little River, which became known as the Wilderness. In 1984, the JDHL School Challenge Course, a

[56] Ibid, 8, 14, and 22.
[57] Ibid, 6 and 29-30.

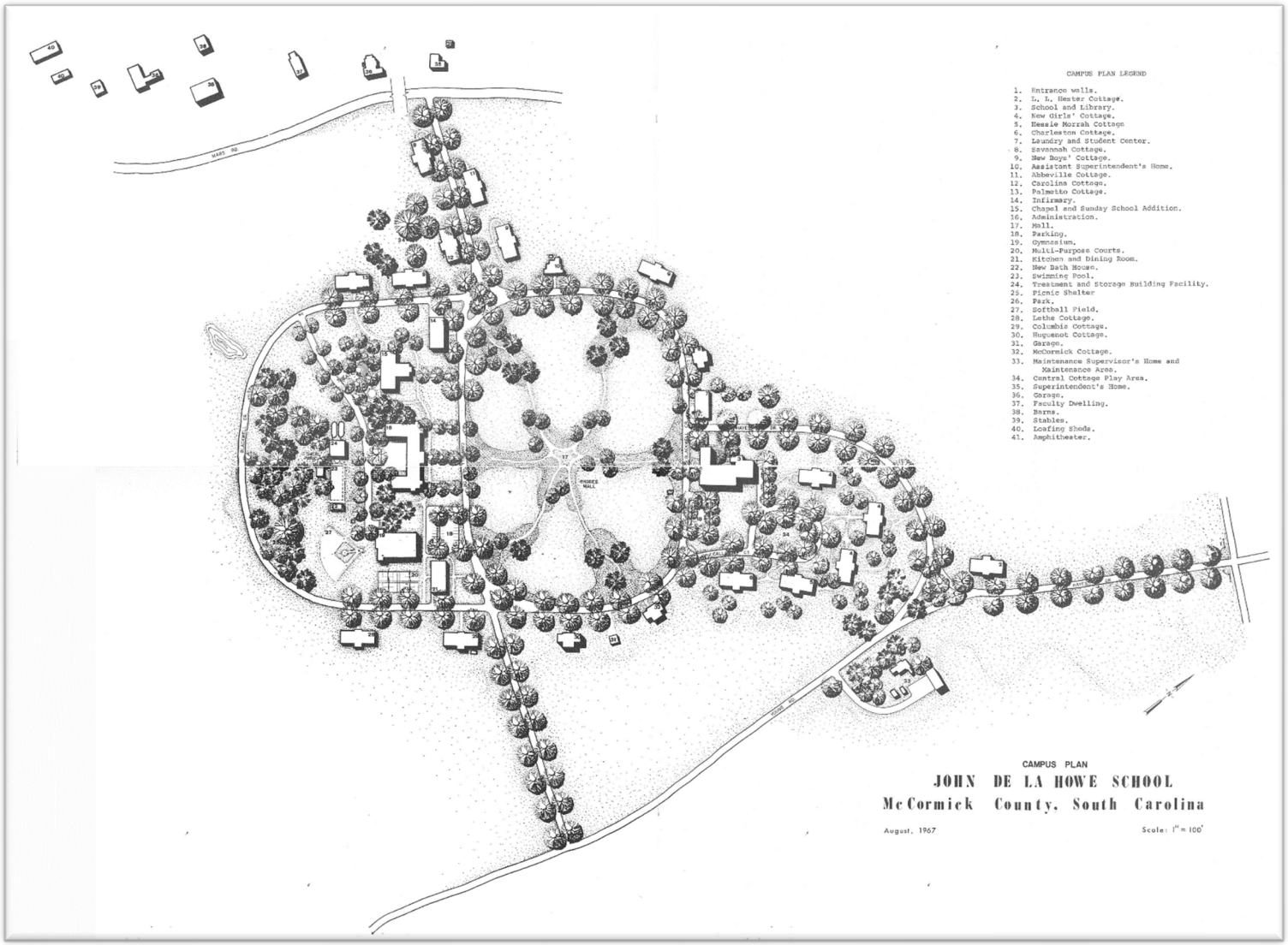

Figure 2.7 – Jones and Fellers' " Campus Plan" for JDLH School. Eight new cottages were suggested to create building clusters as well as a realignment of Branch Drive to the west side of the Family Center. In their proposed plan pedestrian sidewalks can be seen crossing the central mall and shade trees have been added along the streets.

ropes course, was added near the Wilderness, and in 1987, the school began its Wilderness Program.[58] As for the remaining portions of the property, most was utilized as managed timber forests with hiking trails for students and visitors. The remaining open land has been continually utilized as pastures. Few structural changes occurred after this time, but the school's attendance and purpose seemed to be slipping away.

Key Takeaways:

- Of the original buildings on the 'Old Site,' the only one that remains is the Branch House (c. 1900s – 1910s).
- A vast majority of the campus was constructed in two time periods; 1930 – 1940 and 1970 – Present, with a few alterations being made between these periods.
- In 1967, an architecture and planning firm identified the following:
    - There are some established building setbacks around the central mall and the entry road.
    - Structure density is 'spread haphazardly,' with a patterning of distances between each that allows for views of individual structures as well as groupings of structures.
    - Directional signage was not present before the 1967 plan.
    - Parking, curbs, and gutters around the campus have been of little priority; as the number of vehicles on campus up to the 1967 plan was so low; it has increased since 1967, though it is still low.
    - The school's recreation facilities are located in areas of or surrounded by natural beauty.
- The central mall's creation is unknown and function undefined; however, the historic value and sense of place it holds for the school is evident in the lack of changes.
- There appears to be a certain amount of respect for older buildings as numerous remain from the early 1900s.

[58] The John de la Howe School, 15-16

Examining the history of JDLH, specifically tracing the development of the property, has revealed the various historically significant buildings and spaces that are important to protect on the current campus. While most buildings and locations on the site hold some form of significance, buildings and locations such as The Branch House, de la Howe Hall, the Central Mall, 'The Dairy Barn,' and the Family Center, seem to be vital pieces to the school's framework and identity. The school's academic core is established around the Central Mall area, focusing pedestrian views inwards around the campus's oval lawn. The history has also explained JDLH's continued directive to serve as an educational institute, remain flexible to the ever-changing needs of the South Carolina community. The result of this examination has helped in establishing areas that are significant to the school's past, and therefore, revealed what needs to be protected in the development of a campus master plan.

Background Research: Governor's School Programs

One of the JDLH School Board of Trustees' goals throughout their refocusing process is to become an academic year-round residential South Carolina Governor's School (nine-month academic year plus summer programs). However, what is a Governor's School? What is unique about it? How does this influence the development of this thesis' guiding principles?

What is a Governor's School?

Governor's School programs in many states are usually highly selective, one to six weeks long, and residential summer programs organized for gifted and talented high school students. While the mission, focus of the program, or even the school's title may vary from state to state, the underlining concept remains similar, offering non-traditional, innovative approaches to

educating students in a specific field. These programs began in 1963 when North Carolina Governor Terry Sanford established the first program at Salem College; shortly after, Georgia, South Carolina, Arkansas, and Kentucky followed suit. While the number of states with programs and the number of summer programs offered in each state varies each summer, depending on the state funding. Today, roughly fifteen to twenty states host over fifty programs with varying focuses of topics, from STEMS to the Arts and Humanities. These programs are generally tuition-free or require minimal fees, and are held on college campuses due to the academic and artistic facilities that are available.[59]

There are exceptions to the standard Governor's School program, as can be seen in South Carolina and Virginia's programs. South Carolina is the only state to offer a residential academic year Governor's School program and currently supports two such programs. Virginia's Governor's School program offers three types of programs: a non-residential academic year program, a summer regional non-residential program, and a summer residential Governor's foreign language academics program. Since JDLH plans to implement an academic year program, this thesis will examine both the South Carolina schools (the Governor's School for the Arts and Humanities and the Governor's School for Science and Mathematics programs) and the Chesapeake Bay Governor's School, a non-residential academic year program in Virginia. While the Chesapeake Bay Governor's School is neither residential nor in South Carolina, it is another academic year program with a concentration in a similar field of study, specifically marine science.

[59] The National Conference of Governor's Schools, "The National Conference of Governor's Schools: About," https://www.ncogs.us/about.html (Accessed January 8, 2020).

The South Carolina Governor's School for the Arts and Humanities

The state legislature created the South Carolina Governor's School for the Arts and Humanities (SCGSAH) in 1980 as a five-week program to provide "professional training and nationally recognized academic education to South Carolina artistically talented students."[60] It focuses on serving "the artistically talented high school students of South Carolina through programs of pre-professional instruction in an environment of artistic and academic excellence."[61] After numerous years of lobbying by supporters and the completion of a feasibility study, a bill was passed by the state legislature in 1996 to expand the program into a year-round (nine-month plus summer program) residential academic program for high school juniors and seniors. Greenville County and the City of Greenville donated eight and a half acres of what was formally Furman University's Men's Campus, located on the Reedy River, to construct the $30 million campus.[62]

The school opened in Fall 1999 with 125 juniors and, by the Fall 2000 school year, reached 232 juniors/seniors.[63] Through a unique selection process, some sophomores can attend, though their number remains low each year. Today, the school and classes operate much like a college campus, while still meeting the requirements of a South Carolina High School Diploma. Like traditional high schools, the state requires the standard classes, offering various levels, like honors, advanced placement, and college credit. However, the program differs, requiring students to select one elective focus, such as music, visual arts, drama, dance, or creative

[60] South Carolina Governor's School for the Arts and Humanities, "South Carolina Governor's School for the Arts and Humanities: About," https://www.scgsah.org/about (Accessed December 22, 2019).
[61] Ibid.
[62] Ibid, and The South Carolina Governor's School for the Arts and Humanities, *Annual Accountability Report Fiscal Year 2000-2001* (Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2001), 1-2.
[63] *Annual Accountability Report 2000-2001*, 14 and South Carolina Governor's School for the Arts and Humanities, *South Carolina Governor's School for the Arts and Humanities: Transmittal Message* (Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2000), 4.

writing.[64] Acceptance into the school depends on student auditions, allowing the student to test for as many elective topics as possible. Upon acceptance to the program, a student must select an elective focus (based upon the audition subjects the student passed) for the remainder of their time at the school. Through immersion into their disciplines, the program allows "students to live on campus with peers with similar aspirations," allowing them to focus their studies and artistic endeavors.[65] Completing all of the school's additional requirements, students can receive a special SCGSAH Scholar's Diploma.[66]

Supporting these functions is an eight and half-acre campus in the heart of Greenville, South Carolina. The campus was designed to emulate a Tuscan Village by DP3 Architects, Ltd. and incorporates a wide variety of structures including residence halls, a performance hall, theater, practice rooms, art gallery, library, classrooms, studios, laboratories, dining hall, fitness center, and gardens with sculptures and courtyards. Student residence halls are separated by gender, with students sharing their rooms with one roommate. The latest addition was a 10,000 sq. ft. building for a music department that provides studios, practice rooms, large activity spaces, and musical equipment storage.[67] The campus is enclosed by gated fences for security and monitored throughout the property by security cameras. As there is little available space remaining on the 8.5-acres beyond the buildings, students cannot have vehicles on or off the

[64] South Carolina Governor's School for the Arts and Humanities, *Governor's School Course Selection Guide 2019-2020* (Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2019), 1-2.
[65] "South Carolina Governor's School for the Arts and Humanities: About," https://www.scgsah.org/about.
[66] South Carolina Governor's School for the Arts and Humanities, *South Carolina Governor's School for the Arts and Humanities Student Handbook: 2019-2020 Residential High School* (Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2019), 2-2.
[67] "South Carolina Governor's School for the Arts and Humanities: About," https://www.scgsah.org/about.

property. Because the campus is so close to downtown, students are encouraged to walk or bike to the various restaurants, shops, and parks.[68]

Key Takeaways:

- A Governor's School is a highly selective program that serves qualified students through immersion in a specialized subject.
- The program is designed to serve juniors and seniors providing for all aspects of their lives; housing, food, entertainment, safety, exercise, schooling, and extracurricular activities.
- Student residence halls on campus are separated by gender.
- Outdoor spaces for activities are limited; however, they are provided where possible.
- Students are not allowed to have vehicles on campus, presumably due to the lack of space for parking and the potential safety and security risks in the school's area.
- The school should consider the construction of specialized buildings to meet the needs of the student body or specific programs when possible.
- The school must implement practical security measures to ensure the safety of the student, faculty, and staff.

The South Carolina Governor's School for Science and Mathematics

Unlike the SCGSAH, the Governor's School for Science and Mathematics (SCGSSM) was founded as a residential program on a small portion of Coker College's campus in 1988. Opened with sixty-four students living on campus, SCGSSM is the "only two-year, public, residential high school dedicated to the advanced study of science, technology, engineering, and

[68] K. Chamberlain, *South Carolina Governor's School for the Fine Arts* (Athens, Georgia: University of Georgia Thesis), 2, and "South Carolina Governor's School for the Arts and Humanities: About," https://www.scgsah.org/about.

mathematics."[69] In 2003, the school moved to a new location in the small town of Hartsville, South Carolina, and with its new facilities, allowed the school to reach its max capacity of 288 students in 2015.[70] The SCGSSM is a public school, and therefore tuition-free, requiring students only to pay a student meal fee, for which financial aid is available. To graduate, the school requires the core classes for the South Carolina Diploma as well as extra courses in one discipline to receive the SCGSSM Diploma.[71] Students' daily schedule is similar to the college model, taking courses from 8:00 AM to 5:00 PM. Students are allowed free time between classes, relying on the students' maturity to be responsible for themselves. After 5:00 PM, students are encouraged to engage in clubs, sports, and to relax before a mandated quiet time known as 'QUEST' – Quality, Uninterrupted, Enforced, Study Time. During QUEST, students work in silent study before bed. During the summer break, students work on a research experience sometimes by partnering with professionals across the state, in order to further their future interest and experience with STEMs.[72]

Meeting the needs of their students, SCGSSM has created a campus that "resembles an intimate college campus."[73] They have two residence halls, separated by gender, that utilizes a British "House System" making the students responsible for themselves and each other. Other school areas offer exercise facilities, residential suites, social lounges, a coffee shop, and a

[69] Despite best efforts, locating a campus map or rough estimate of the size of the school has been unsuccessful. South Carolina Governor's School for Science and Mathematics, *GSSM Journey* (Hartsville, South Carolina: South Carolina Governor's School for Science and Mathematics, 2019), 3, and South Carolina Governor's School for Science and Mathematics, *Envisioning the Future: South Carolina Governor's School for Science and Math Strategic Plan* (Hartsville, South Carolina: South Carolina Governor's School for Science and Mathematics, 2018), 1.
[70] South Carolina Governor's School for Science and Mathematics, "South Carolina Governor's School for Science and Mathematics: About," https://www.scgssm.org/about (Accessed December 22, 2019).
[71] South Carolina Governor's School for Science and Mathematics, *South Carolina Governor's School for Science and Mathematics: Course Catalog 2019-2020* (Hartsville, South Carolina: South Carolina Governor's School for Science and Mathematics, 2019), 3.
[72] "South Carolina Governor's School for Science and Mathematics: About."
[73] Ibid.

modern dining hall. The new campus also allows students to enjoy the use of sports fields, open art studios, a gymnasium, a weight room, an engineering project center, kitchen, game room, and community space, and fourteen varsity athletics teams and over seventy clubs and societies.[74]

Key Takeaways:

- The classes and campus are modeled after a college campus.
- The school started slowly with a few students growing structurally to meet the changing needs of the students and campus.
- The school encourages and supports student interest in various fields of study through technology, research spaces, and opportunities.
- Residence halls are gender separated.
- The school provides student activities, social and educational facilities, dining, sports, and clubs and societies for students.

The Virginia Chesapeake Bay Governor's School

The Virginia Chesapeake Bay Governor's School (CBGS) was initiated in 1973 and is supported by the Virginia Board of Education. The CBGS falls into the category of a non-residential academic school year program working "to supplement the instruction of local High Schools" through non-traditional teaching methods to support students.[75] As a non-residential program, CBGS transports their students each morning from fourteen different regions to deliver students to one of three campuses.[76] Their mission is "through the integration of math, science, technology, and research, woven with marine and environmental sciences, students have the

[74] Ibid.
[75] Chesapeake Bay Governor's School, "Chesapeake Bay Governor's School: About Us," https://cbgs.k12.va.us/overview-mission/ (Accessed December, 23, 2020).
[76] Again, locating a map of CBGS or a rough estimate of its campus size has been unsuccessful.

opportunity to foster an appreciation and respect for environmental issues."[77] To do this, the school utilizes its unique placement on the middle peninsula of Virginia and the Chesapeake Bay to work with the living classrooms of the Bay, tracing the movement of water from the mountains to the sea. Through field trips and experimental science in the fields, students can gain an appreciation for the environment while assisting their local community's ecosystems. Upon completion of the three-year program (allowing tenth-grade students to participate) and an independent research study usually completed over their summer break, the students can wear the CBGS Community Service "Gold Cord" at their school's graduation ceremony.[78] Like other Governor's School programs, this program is tuition-free, and therefore, is competitive based on math and science for entry.

Key Takeaways:

- The school requires independent research during the summer for completion of the program.
- As a non-residential school, the program buses students to the locations from fourteen locations.
- Students can gain an appreciation for the environment through fieldwork.
- Students can work with their communities to improve their local ecosystems.
- The school is a three-year program allowing tenth-grade students to participate.

Background Research: Agricultural Education

"Reading the scientific and popular literature in the agricultural education profession is a complex skill that requires a specific knowledge of the range of subjects that influence the profession."[79] Learning this knowledge base requires a broad perspective of diverse fields. This

[77] "Chesapeake Bay Governor's School: About Us."
[78] Ibid.
[79] Barry Croom, "The development of the Integrated Three-Component Model of Agricultural Education," *Journal of Agricultural Education,* vol. 49, no. 1 (2008): 112.

work will briefly summarize the development of agricultural education into a three-tiered integrated model and what this model means for a school's campus. On any farm, the animal's welfare is the priority. It is essential to understand that an acceptable level of welfare can exist "over a range of conditions provided by a variety of agricultural production systems, not under just one ideal set of conditions."[80] Proper management and high standards of care are essential for an effective production system; hence, this approach would be emphasized in the agricultural and animal research and teaching practices at JDLH.[81] This work cedes the best farming practices knowledge to the experts at the school and encourages the school to provide a reasonable amount of land for their required agricultural education purposes.

The predominant model of agricultural education programs in the United States involves an integral method of three components: classroom and laboratory instruction supervised, agricultural experience (SAE), and agricultural youth organization participation (predominantly FFA). The "integral nature of the model probably exists out of tradition, or as a result of a philosophical tenet in the agricultural education profession."[82] SAE was probably the first of these three methods, emerging out of Colonial America in the form of apprenticeships to skilled tradesmen. Around the 1850s, agricultural societies began disseminating information and research through publications, newspapers, and lectures to rural communities.[83] Slowly this turned into vocational agriculture training at a few schools.[84] Youth organizations would merge with the others between the early 1900s to the late 1920s. During this time, boys' and girls' clubs were encouraged to participate in stimulating their academic interests and agricultural

[80] Federation of Animal Science Societies, *Guide for the Care and Use of Agricultural Animals in Research and Teaching*, 3rd ed. (Champaign, IL: Federation of Animal Sciences, 2010), 17.
[81] Ibid, 17.
[82] Croom, 110.
[83] Ibid, 112-113.
[84] By this point at JDLH, the school would have been in operation and flourishing for roughly 20-30 years.

development.[85] These three components have since supported agricultural education, and though each is uniquely different, each relies on the others for support. Below are summaries of each component.

The Classroom and Laboratory Instruction

Classroom and laboratory experiences in a school setting are the fundamentals of any basic educational system. The lessons and activities are designed and facilitated by teachers using formal instruction methods, including lectures, demonstrations, independent practice, review, and assessment, to pass along knowledge. While this method is effective, alone, it can also have adverse effects by confining the student to the classroom and not allowing them to apply their knowledge practically. "Effective pedagogy involves a variety of interacting components" and should include SAE and FFA activities to supplement the lessons with experiences.[86]

Supervised Agricultural Experience

SAE is a form of independent learning designed for students involved in the agriculture field. Students learn through the physical application of the agricultural knowledge and principles they acquire in the classroom, gaining valuable experience.[87] Instructors assist by designing or implementing real-life situations and activities to challenge the students' critical thinking and decision-making skills.[88] In some cases, a student can assume ownership of a

[85] Croom, 114.
[86] Robert J. Marzano, "Setting the Record Straight on "High-Yield" Strategies: Watching your work adopted by educators across the nation is flattering, but not if it's widely misinterpreted," *PDK International*, vol. 91, no. 1 (2009): 30.
[87] Croom, 110.
[88] T. Grady Roberts and James E. Dyer, "Characteristics of Effective Agriculture Teachers," *Journal of Agricultural Education,* vol. 45, no. 4 (2004): 83.

project or work with community members in a way that, upon graduation, aids in the student's transition to a career. Some of these projects can evolve, requiring research in the school's agricultural labs. These efforts require the school to stay up to date on current and evolving technologies and agricultural practices.[89]

Youth Organizations (FFA)

The last tier greatly complements the other two methods by providing outlets for cooperation, facilitation, and community involvement. The FFA (Future Farmers of America) is "designed to encourage students to perform well academically" and "assist in developing student interest."[90] An FFA chapter present at a school can be a great asset by providing career events, scholarships, awards, and leadership programs for students to engage with inside and outside the classroom. Students active in their chapter are connected with years of experience and knowledge through other members and can find an unlimited amount of assistance with projects and classroom learning.[91]

Focusing on a narrow range of these strategies or planning for one component of this three-tiered model over the others can stifle the potential learning effect of a program. Effective agricultural education teaching requires a wide range of strategies necessary for a diversified program. [92] Meeting the needs of these three components requires ample space for the care of the animals, select locations for research and teaching, and space for proper maintenance and storage

[89] The National FFA Organization, *Agriculture Teacher's Manual: A Guide for Prospective, New and Experienced Agriculture Instructors/FFA Advisors* (Washington, D.C.: The National FFA Organization, 1998): 10-2.
[90] Croom, 110.
[91] The National FFA Organization , 9-2.
[92] Marzano, 31.

of farm equipment. Proper management of that space is essential for safe and productive research and teaching activities for students.[93] Understanding how JDLH seeks to utilize this three-tiered method of agricultural education and to know what comprises each tier helps define the future needs and use of their space.

Key Takeaways:

- Agricultural education is a complex field predominately utilizing the three-tiered model of classroom instruction, supervised agricultural experience, and youth organization engagement.
- High standards and proper management are essential not only for safe and effective production on a farm but also for the research and teaching of the students.
- Ample space should be allotted to meet the needs of each core component, including space for the proper care of animals, special locations for research and teaching, and space for proper maintenance and storage of farm equipment.
- SAE and FFA should supplement any classroom instruction.
- Agricultural schools should provide SAE and strive to stay current on technologies and best farming practices.
- FFA chapters encourage student interest in agriculture, providing educational outlets, projects and leadership opportunities, and community engagement.

Background Research: Principles of Campus Design

"The American college campus is a three-dimensional dream of utopia cast in bricks and mortar. As much as the words exchanged and produced in the classrooms, lecture halls, and laboratories, the spaces in which the verbal interactions occur are fundamental to learning."[94]

[93] Federation of Animal Science Societies, 16.
[94] Fletcher Farr Ayotte Inc., *Reed College Heritage Master Plan: Forward* (Portland, Oregon: Reed College, 2006), 3.

Considering the potential for JDLH to become a Governor's School, which, as established above, is organized to resemble a college layout model more than a high school, it is essential to examine principles of campus design. This section of background research will look at the concepts of campus design, including how a plan is meant to support the institute's vision, general principles of design, and some case studies that include both historic resources and agricultural education examples.

Supporting the Institute's Vision through Campus Design

"An institute's physical campus environment plays a key role in expressing – and in helping to achieve – that institution's mission and strategic objectives."[95] Simply put, what visitors, faculty, and students see on campus, and of the campus, represents the values put forth by the institute. The physical aspects of the campus, from the landscape to buildings to activity spaces around the campus, send a message about the values of the institute. If a campus' environment is poorly planned or maintained, with no directional cues and no physical uniformity of the space, then this is the feeling an institute will emit when viewed from the outside and, perhaps more importantly, from those within the campus. However, creating a welcoming campus that informs the viewer directionally as well as provides warming perspectives relays an entirely different experience, reflecting and corresponding to the institute's values. "Mission-driven planning and design provide institutions with a method for implementing campus facilities and open spaces with a view towards supporting the mission of the institution and providing this kind of attractive environment."[96]

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[95] Daniel R. Kenney, Ricardo Dumont, and Ginger Kenney, *Mission and Place: Strengthening, Learning, and Community through Campus Design* (Westport, Connecticut: American Council on Education and Praeger Publishers, 2005), 28.
[96] Ibid, 31.

When designing for a campus, it is essential to realize that learning takes part not just in the classroom but throughout the campus, in recreation areas, in the dormitories, and even from random engagements on pathways. Creating spaces for traditional instruction, peer interaction group work, experiential learning, recreation, and even relaxation becomes vital to the students' and faculty's success during their time on campus. If a campus is designed to encourage these engagements and open communication, positive results can occur, like more effective learning and a more vibrant community. [97] As such, any institution's priority should be to provide its students with the best education and educational facilities, including a supportive campus that offers opportunities for physical, social, and emotional growth. This student-centered focus must be reflected in any campus' mission and vision and seen through their campus' guiding principles for a master plan.[98]

Still, the question remains, how is it possible to incorporate a campus' mission and vision into a campus design? Leading literature suggests the concept of placemaking. Defined as the "structuring of the overall design," or the "art of making physical decisions about the environment," placemaking is the skeleton of the campus.[99] Placemaking is a framework of specific designs to meet the needs of overarching objectives, whether they are programmatic, functional, or visual. By arranging the campus' land uses, the institute can create "an appropriate image of its own making, an amalgam of buildings and landscapes that communicates a distinct sense of place, functionally suitable for the institute's particular purpose."[100] Institutions care about this because it relates directly to the quality of the experience people receive being on

[97] Ibid, 6, 28, and 33-36.
[98] Hideo Sasaki and Lord Aeck Sargent Architecture, *Campus Master Plan: Abraham Baldwin Agricultural College* (Tifton, GA: University of Georgia, 2006): 29-30.
[99] Richard P. Dober, *Campus Design* (New York: John Wiley & Sons, Inc., 1992), 4, and Kenney, 3.
[100] *Campus Design*, 4 and 7.

campus, building loyalty to the institute, and showing students how to bond with each other and the institute.[101]

In designing to meet these objectives, a campus design incorporates 'placemarking,' whether intentionally or not, creating landmarks on landscapes that define the campus giving it a visual uniqueness (Figure 2.8).[102] These landmarks and landscapes are typical on older campuses, usually being singularly large structures that come to symbolize the institute's presence. The location of these structures are generally found on a "topographically commanding site, along the edge of the campus green."[103] Often, the greenery or green spaces themselves serve as a landmark, though these spaces are sometimes taken for granted and their importance forgotten until they are gone. Supporting the campus mission and vision, "campuses must be designed to anticipate and accommodate new roles, functions, and ideas, and at the same time carry on and integrate those traditional and conventional activities which deserve preservation and enhancement."[104] Many times institutes work to develop solutions to dilemmas as they appear without considering the long term and big picture of the mission and vision. Campuses must produce overarching campus plans that include a criterion of guiding principles for the best practices and solutions that work with the mission and vision.[105]

An excellent comprehensive plan should promote the community while guiding growth in a way that retains the institute's identity. "A new plan for an existing campus must strike a balance between the institute's current assets and it's new aspirations."[106] In order to maintain the institute's identity, the plan must preserve the cherished locations on campus while

[101] Kenney, 74-75.
[102] *Campus Design*, 5.
[103] *Campus Design*, 22-23.
[104] Ibid, 229.
[105] Kenney, 8.
[106] Ibid, 80, 85, and 92.

Figure 2.8 – Placemaking Images: Placemaking landmarks can be large and imposing buildings of historic importance such as the University of Arkansas' Old Main (Top Left) built on the hilltop, serving as the campus' centerpiece or small structures that have developed meaning over time due to traditions like the University of Georgia's Arch (Top Right). One evident landmark on JDLH's campus is de la Howe Hall, built on the hilltop overlooking the Central Mall. Sources: "20 Most Impressive Historic College Campuses in the U.S.," March 8, 2020, retrieved from: https://www.collegevaluesonline.com/features/20-most-impressive-historic-college-campuses-in-the-u-s/; Kelly Whitemire, "UGA named a 'Public Ivy' School," *The Red & Black*, March 8, 2020, retrieved from: https://www.redandblack.com/news/uga-named-a-public-ivy-school/article_d43d6586-fadd-11e1-900b-001a4bcf6878.html; and "John de la Howe School: History," June 23, 2019, retrieved from: https://delahowe.sc.gov/about-us/history.

embracing renewal and change. The history, tradition, and culture are crucial for the integrity of the campus, while every new building, structure, or parking lot is a direct challenge to the vision of the institute. Many institutes have treasured spaces, structures, and buildings on their campus that should be maintained and preserved, however doing this does not mean that no change can occur. In a channeled and structured way, growth over time can add to the integrity and uniformity of the campus, supporting the learning environment.[107] This balance is crucial to the development of the student, as well-planned spaces are vital to healthy social exchanges. Randall

[107] Ibid, 23 and 88.

Arendt, in *Rural by Design*, establishes that healthy neighborhoods, or communities, require a balance between private and public spaces in "a way that it fosters natural social interaction among neighbors while allowing residents to maintain 'visual control' over their surroundings."[108] Applying this idea to a campus, schools should attempt to balance new development with the 'feel' or atmosphere the campus provides to its student population, taking into account the campus' integrity and uniformity.

The chief components of a well-balanced campus plan include the open spaces, circulation, and buildings, each of which helps create the campus' framework. [109] The goal is that no one portion of the three overpowers the other two. To succeed at this, *Mission and Place* suggests a few best practices to emphasize priority:

1. Show precedence of the overall plan over individual buildings and spaces
2. Use of compactness (density) and mixing campus uses to create vitality and interaction
3. Create a language of landscapes elements that express the campus's individuality and relationship to its regional context
4. Tame the automobile
5. Utilize campus architecture to further placemaking
6. Bring meaning and beauty to the special places on campus[110]

Ideally, utilizing these practices will assist in creating a pedestrian-friendly environment that will encourage encounters and provide places for lingering conversations. These spaces can be formal spaces, like classrooms and teacher offices, or informal, like a coffee shop, cafeteria, or a bench on the green. The variety and number of spaces, size, accessibility, visibility, and the

[108] Randall Arendt, Elizabeth A. Brabec, Harry L. Dodson, Christine Reid, Robert D. Yaro, *Rural by Design: Maintaining Small Town Character* (Chicago, Illinois: Planners Press, American Planning Association, 1994), 12.
[109] Kenney, 94.
[110] The work provides a few other best practices however while important they offered little assistance to this work and therefore were not mentioned. Ibid, 9.

noise around them, also matter when designing. A shady outdoor space, easily accessible to the classrooms, is going to be utilized differently at different times of the day, and even at different times of the year. Providing a variety of spaces allows comfort and choices for students and faculty to utilize while increasing the opportunity for planned or random engagement. By designing to foster a close community, one can influence students' connectivity to each other and the institute.[111]

One vital key to ensuring a close community is by designing for density. “When place promotes interaction through compactness appropriate to its size, location and culture, then the benefits of density may be realized even in a small, rural setting.”[112] Density creates enclosure and in-between spaces where engagement occurs and can help enhance community space and socialization. On a campus with an ample amount of land available, infilling in the center of the campus can help preserve natural areas on the outskirts and create more community engagement in the desired locations inside. The center of campus, though, is not necessarily the center of activity or not the only center of activity. Usually, this occurs on larger campuses, resulting in the development of multiple districts or zones of activity. Whether there is one district or many, they tend to have a ten to fifteen-minute walking time from one side to another. Areas such as these should be reinforced by encouraging the closeness of buildings or spaces and incorporating multiple uses, or mixed-use development. Like the overarching master plan, it is in the institute’s best interest to manage its campus density. High density, depending on the style of their campus, is conducive to learning, but too much can ruin the campus’ sense of identity.[113]

[111] Ibid, 41-44, 54-55, and 59.
[112] Ibid, 105.
[113] Ibid, 40 and 105-118.

When beginning the design process, one of the first actions an institute should undertake is identifying the sacred places that already exist on the campus. In order to maintain the institute's integrity, these places must be preserved. This does not mean that change cannot occur, but that as the campus grows, these places should be enhanced to emphasize the uniqueness of the space.[114] From here, an institute can begin establishing the framework of their campus master plan following these accumulated guiding principles for campus design:

Open Spaces

- Green spaces
    - Start with green spaces. The main quad, green space, or street is the starting point.
        - Historically the quadrangle, lawn, or mall is a pedestrian space.[115]
            - Meant to leave a strong impression and provide photogenic locations for visitors and students.
            - Generally utilized as cultural event space for formal and informal occasions.[116]
    - Create 'outdoor rooms' where interaction can occur.
        - Include formal and informal spaces (graduation, amphitheaters vs. hangout spaces, residential courtyards).[117]
        - Spaces designed to provide opportunities for individual and small group interaction.[118]
    - The plan surrounds and frames these places with buildings.[119]
    - Amphitheater spaces are best when surrounded by greenery and landscaping.
        - It should utilize a naturally sloping landscape or bowl shape.[120]
- Landscapes
    - Coherent, consistent, and unified landscapes help establish the vision of the institute.
    - Develop a landscape master plan.[121]

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[114] Ibid, 77-79.
[115] Ibid, 96.
[116] Richard P. Dober, *Campus Landscapes: Functions, Forms, Features* (New York: John Wiley & Sons, Inc., 2000), 158.
[117] Kenney, 95.
[118] *Campus Landscape*, 195.
[119] Kenney, 95.
[120] *Campus Landscape*, 230-231.
[121] Kenney, 137 and 149.

        - Trees and lawns are standard for campus landscapes.[122]
        - Helps to improve survival, a mixture of hardy native deciduous species is preferred (50 feet on center, at least 50 feet in height minimum).[123]
    - Make site selection decisions around buildings based upon the context of the campus plan and landscape framework.
    - Establish a consistent plant palette and guide to materials.[124]
    - Use plantings to abate noise, control dust, divert traffic, secure boundaries, create privacy, and arrange pleasurable views.[125]

Circulation

- Pedestrian Circulation
    - Designed paths to be functional, convenient, accessible, free of vehicles, and provide direction between buildings.[126]
    - Paths should provide a beautiful and pleasing journey between destinations.[127]
    - Paths entry and exit should be ADA accessible.
    - Scale sidewalks and paths for the desired use and volume; pedestrian vs. bicycle, individual vs. group.
    - Separate pedestrian traffic from vehicular traffic, for safety and ease of travel for both.[128]
- Vehicular Circulation
    - Streets, Curbs, Gutters
        - Establish a balance between curbed and natural areas on campus. Curbing increases stormwater runoff but increases the appeal and signifies importance.
        - Where pertinent, provide proper stormwater management strategies when creating curbs and gutters.[129]
    - Parking
        - Large parking facilities must be located in satellite areas and have well-managed circulation that collaborates with mixed-use, ensures safety, and contributes to the campus image.[130]

[122] *Campus Landscapes*, 9.
[123] Arendt, 187.
[124] Kenney, 149.
[125] *Campus Design*, 167.
[126] Kenney, 44 and *Campus Landscape*, 112.
[127] Kenney, 44.
[128] *Campus Design*, 212.
[129] Arendt, 183-184.
[130] Kenney, 97.

- Parking must be screened and include trees, shrubs, paving, and lighting for safety.[131]
- Providing parking spaces close to buildings or in the center forces facilities further apart, thereby making walking less feasible and deters from the community atmosphere creating places where no one wants to linger.

- Distant parking lots do not serve staff who may require proximity to classrooms, therefore, providing minimal parking for such cases may be necessary.[132]
- Within the campus core limit parking to only the necessary: safety, services, ADA, and visitors.[133]
- Consider restrictions for students to having vehicles on campus or limit the availability based on class status or prerequisites of driver's safety classes.

- Consider deliveries and garbage truck's needs.[134]

- Signage
  - Develop a well-organized system and style to create uniformity across campus.
  - Facilitate transitions between driving and walking in districts.[135]
  - Proper vehicular signage is vital to the organization of the campus.[136]

- Lighting
  - Paths must be safe and well-lit for evening use.
  - In the pedestrian area, utilize smaller poles (12-18 feet tall).[137]

<u>Buildings</u>

- Locations
  - Buildings drawing large numbers of visitors should be situated on the periphery of the central campus to provide adequate parking.
  - Large campus residential buildings should be proposed in the periphery.[138]
- Shapes, Sizes, Height Limits, Massing, Positioning

[131] *Campus Design*, 227,
[132] Kenney, 21 and 97.
[133] *Campus Design*, 207.
[134] Kenney, 96 and 181.
[135] Arendt, 108.
[136] *Campus Landscape*, 111.
[137] Rural by Design, 108-109.
[138] *Campus Design*, 227

- Restrictions in these areas need to be established early in the planning process and maintained to ensure campus uniformity and integrity.
- Reinforce the identity of the campus by creating the character and focal points.[139]
- Building Massing – emulate the current overall or in groups.
- Building Height – limit the height in desirable locations.
- Rooflines – follow similar styles (height, slope) to ensure uniformity.[140]

- Materials
  - Reuse buildings meant to last for centuries[141]
  - New construction should blend with used styles or most dominant style and balanced with a sense of proportion.[142]
  - Utilize material that binds the generations visually and symbolically to create a unique campus design.[143]
- Architecture Design
  - All building styles must contribute, retain and reinforce the unity of the campus's original architectural guidelines\principles[144]
  - Should reflect but not strictly imitate the massing proportions.
    - A variety is appealing; however, do not disrupt the setback patterning or historic edge of facades.
    - Avoid exaggerated or excessively large or tiny architecture.
  - Fenestration – place windows proportionately and use correct styles.[145]

Key Takeaways:

- Campus designs should be mission-driven to support the institute and provide students with the best educational facilities possible.
- A campus design should encourage open engagement and communication through the creation of formal and informal spaces and a pedestrian-friendly environment.
- The design process should identify and utilize placemaking to define the campus.

[139] Kenney, 81 and 98.
[140] Arendt, 108.
[141] Kenney, 248.
[142] Arendt, 108.
[143] *Campus Design*, 99.
[144] Kenney, 189.
[145] Arendt, 108.

- Plans must create a balance between preserving cherished locations and embrace new development or site renewal.
- The campus should design for density relative or appropriate to the preestablished size, location, and culture on the campus to enhance the community feeling.
- Before any future development or planning occurs, the institute should identify unique or sacred places on campus and design to emphasize these locations.

Campus Design Case Studies

With the recommendations of campus design established, it is helpful to examine how they have been applied to campus designs by looking at a few case studies. The first two of the following four case studies were selected from The Getty Foundation's Campus Heritage Grant program, a grant designed to assist colleges and universities with managing and preserving the integrity of their campus' significant historic buildings, sites, and landscapes.[146] The New Mexico State University Heritage Preservation Plan and Reed College Heritage Master Plan offer valuable insights into how to integrate preservation planning with campus master plans. To summarize the preservation planning philosophy, it is an attempt "to preserve character-defining spaces and features while adding new functions and equipment."[147] The third of these case studies is the Abraham Baldwin Agricultural College Campus Master Plan that also integrated the preservation of their campus with the necessity of future development. Finally, the last of these case studies is the Campus Master Plan for Rabun Gap Nacoochee School. This primary

[146] The Getty Foundation, "The Getty: Campus Heritage Grants," http://www.getty.edu/grants/conservation/campus_heritage.html (Accessed January 16, 2020).
[147] World Monuments Fund, *Preserving the Textile Block at Florida Southern College* (Lakeland, Florida: World Monuments Fund, 2011), 8.

and secondary level boarding school has a similar history and character-defining features as JDLH.

New Mexico State University, Heritage Preservation Plan

The New Mexico State University's (NMSU) Heritage Preservation Plan's goal was to supplement the campus's 2006 master plan by identifying and discussing historically significant buildings, structures, and landscapes on its approximately 900-acre campus that needed preservation in a way that would accommodate for the campus' constant growth. The result was the identification of four 'districts' that were important and worthy of preservation. They would attempt to honor the heritage of the historic core of the campus (Figure 2.9). Through their work, they established that when it was possible, preserve; when it was not, integrate the changes with the campus' agricultural heritage through building design, interpretive displays, signage, and preservation of the remaining area. Essential to this process was the documentation of character-defining features of the campus' architectural and landscape features in order to provide the necessary recommendations for preservation, rehabilitation, or restoration. These character-defining features included shape, design, material, craftsmanship, decorative features, layout, and landscape.[148]

One of their key recommendations was to incorporate *The Secretary of the Interior's Standards for Preservation Planning* and the *Treatment of Historic Properties* into the day-to-day operations of maintenance and to continuously reference them whenever future planning was necessary. The final work states, "Historic preservation at the university should employ a

[148] Van Citters Historic Preservation, LLC, *New Mexico State University Heritage Preservation Plan, Volume 1* (Albuquerque, NM: Van Citters Historic Preservation, 2009), I, iv, and 1-5.

Figure 2.9 – New Mexico State University Heritage Preservation Plan: The map illustrates the four preservation districts that were created as a result of the school's work.
Source: *New Mexico State University Heritage Preservation Plan, Volume 1*, Van Citters Historic Preservation, LLC, May 2009.

philosophy that unites the Regents, administrators, building stewards, and maintenance staff in the overall goal to provide modern facilities and retain the historic qualities of the campus' buildings and landscapes that provide a sense of place and heritage."[149] The intent here was not to halt redevelopment and progress on the campus but to create a sense of pride in the campus' history and uniqueness that allowed for changes while honoring the past. A few relevant preservation development guidelines they put forward were:

Buildings:

- Respect the massing and proportions of the existing buildings in each district, such as setbacks, fenestration patterns, detailing.
- New development and architecture designs should not mimic the existing, which might create a false sense of history, but instead honor it through use of its architectural style's components and elements.
- Ramps should be designed to have the least possible visual impact, utilizing an L-shape or U-shape when needed along historic buildings.
    - Use short landscape walls and plantings to lessen the visual impact of ramps and reduce the visual profile.

Landscapes:

- Protect important landscape views when infilling and developing the campus.
- Mounted signs and plantings may change in design over the years; however, the scale should not be larger than its present prominence.
- Develop a Landscape Plan to establish the principles of development of the major pedestrian malls, open spaces, parking lot designs, outdoor spaces, and landscape features.
    - Include a palette for retaining walls, benches, shade structures, and other pedestrian amenities.
- Preserve valuable shade trees and protect these trees during times of new construction.[150]

Looking at these recommended guidelines, it is easy to see some similarities to the campus design recommendations mentioned above and how, in their process, they attempted to merge the preservation plan with the campus master plan.

[149] Van Citters Historic Preservation, LLC, *New Mexico State University Heritage Preservation Plan, Volume 2* (Albuquerque, NM: Van Citters Historic Preservation, 2009), 79-80.
[150] Ibid, 80-81.

Key Takeaways:

- The institute should incorporate *The Secretary of the Interior's Standards for Preservation Planning* and the *Treatment of Historic Properties* into the day-to-day operations of maintenance and reference them whenever future planning is necessary.
- In the design process, identify any zones or districts worthy of preservation, especially around the historic core of the campus.
- When possible, preserve, when not, integrate additions or changes with the campus agricultural heritage through displays or signage.
- Through preservation, help to create a sense of pride in the campus's history and uniqueness.
- Integrate the preservation development design guidelines listed.

Reed College, Heritage Master Plan

At the beginning of an update to their master planning campaign, Reed College utilized The Getty's Campus Heritage Grant to take a systematic inventory of their distinguished architectural heritage before future development occurred on its 116-acre campus. In their process, they established a hierarchy of historic importance with a focus on areas with the most significant contributions to campus' character. This assisted in the development of treatment options as well as allowed for the appropriate use of limited preservation resources and funding to areas of higher importance first. Their evaluation first quantified a site or structure's historic value, or significance, before examining the resources level of historic integrity, determining if the key elements of the resource's significance were still present and relevant. This process was based on the National Register of Historic Places methodology. The result established areas of importance to the campus identity and allowed the plan to develop specific preservation guidelines for each character area. For example, their guidelines for protecting 'The Great Lawn'

included maintaining the significance and integrity of the space, the proper tree-to-open space ratios, and the existing view corridors in all directions (Figure 2.10). Overall, the plan was designed to provide guidelines "to protect the integrity of the resource while accommodating some level of change expected to occur over time."[151]

Key Takeaways:

- Establish a hierarchy of historical importance to help focus and direct limited preservation resources and funding to critical locations.
- Develop individualized preservation plans for the historic locations and character-defining areas to ensure proper care and maintenance.

Abraham Baldwin Agricultural College, Campus Master Plan

Abraham Baldwin Agricultural College (ABAC) started as a two-year residential associates' college and has now expanded into a four-year college offering a variety of opportunities with an emphasis on agriculture and environmental science degrees. Established in 1908, the college has expanded to include 421 acres of property to accommodate its growth. ABAC's Campus Master Plan was developed with the philosophy that the institute's priority is to provide students with the best education possible. Therefore, the development of the campus' guiding principles should reflect their mission. Their campus plan is meant to provide "a supportive campus climate, necessary services, and leadership and development opportunities" while honoring their past heritage.[152] The plan offers an in-depth inventory of their existing conditions following closely to the landscape architecture methodology, examining existing site

[151] Fletcher Farr Ayotte Inc., 2.1, 3.1, and 3.4.
[152] Sasaki, 19 and 30-31.

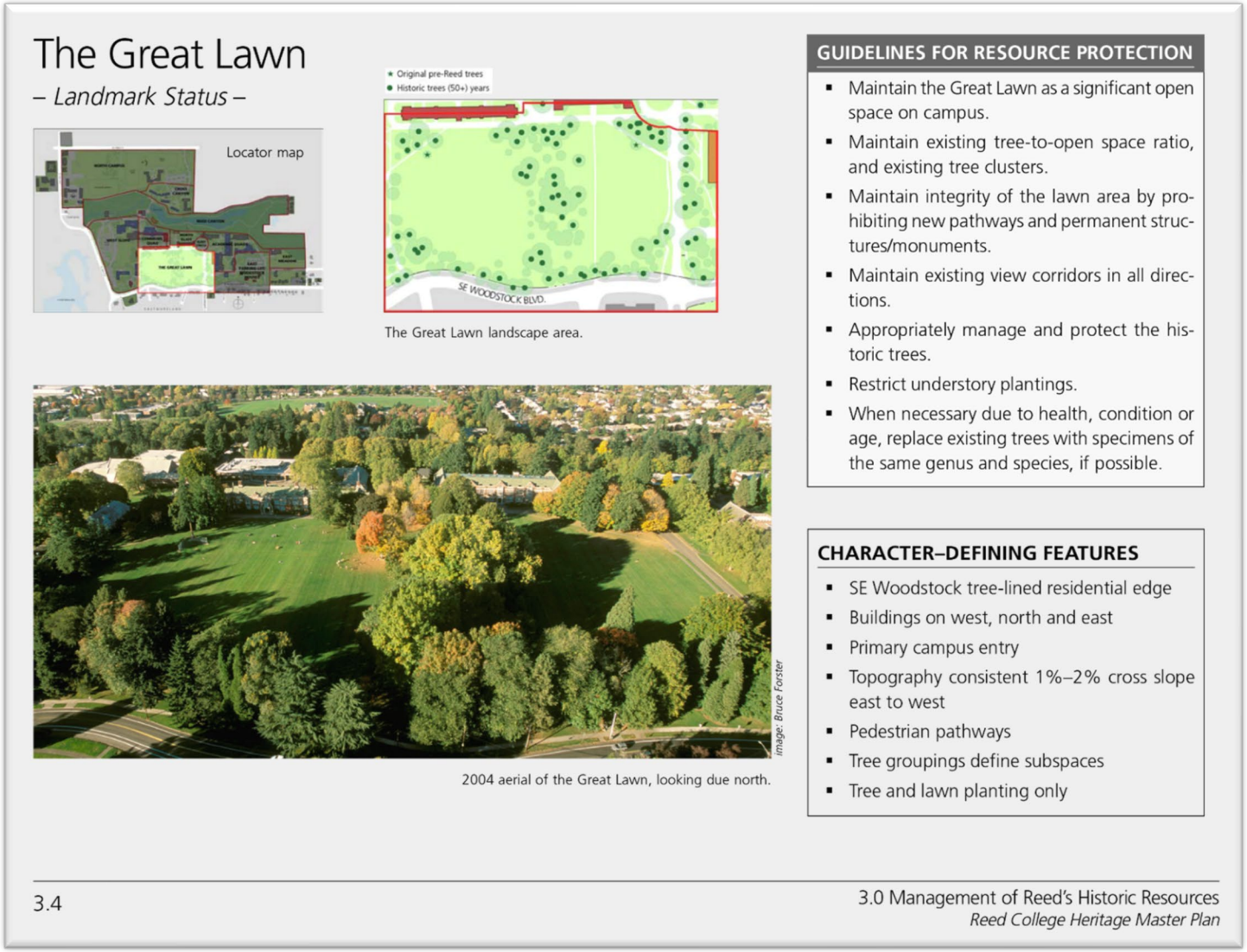


Figure 2.10 – The Great Lawn, Reed College. JDLH should look to produce protection guidelines in its future development as a means of preserving the campus' natural feeling similar to this example. Source: Robert Melnick, "Management of Reed's Historic Resources," *Reed College Heritage Master Plan*, Mayer/Reed Landscape Architecture, June 2006.

conditions, campus land use, circulation, and community setting, before explaining the future campus requirements. The result of this process was the development of several goals for their future:

- Reinforce the pedestrian mall as a campus organizing principle and framework for future academic expansion
- Incorporate Lake Baldwin into the campus core
- Build additional residence halls to maintain the 30% resident student to commuter student ratio
- Modify vehicular circulation to create a coherent pattern and to minimize pedestrian conflicts
- Concentrate parking around the perimeter of the campus core
- Improve the quality and definition of open spaces
- Preserve farmland to support ABAC's agricultural mission.[153]

To successfully facilitate these goals, ABAC's campus master plan established development guidelines. Some of the guidelines that could also be applied at JDLH include:

- Always prioritize pedestrian traffic.
- To ensure a pedestrian-friendly core, parking will be concentrated on the perimeter.
- A small amount of parking on the interior is necessary for critical populations, handicap, and visitors.
- Avoid parking lots near historic areas and campus entry.
- Parallel parking along the circle.
- Approximately a ten-minute walking distance between academic buildings is essential to creating a compact campus.
- Parking is regulated to the perimeter.
- If necessary, to conserve precious farmland, parking lots must be built along the highway, with a fifty-foot buffer to minimize the 'visual impact.'
- Utilize trees along the pedestrian mall to link buildings
- Provide a directional network of pedestrian paths to link the main areas of the campus
- Parking near historic buildings should be behind and out of view
- Maintain the vegetated core.

[153] Ibid, 65.

- In the quadrangle, maintain substantial green space, lawn, and shade.
- Reinforce the frame of the quad-core with new academic, laboratory, and student service buildings.[154]

Key Takeaways:

- ➢ Adopt a design philosophy that prioritizes the campus's mission and vision.
- ➢ Integrate the future goals and design guidelines listed.

Rabun Gap Nacoochee School, Campus Master Plan

Rabun Gap Nacoochee School has a similar history to JDLH, at one point, also serving as an Industrial School for the isolated people of the region. After suffering from a devastating fire in 1926, the school merged with the Nacoochee Institute on the adjacent property, who had also suffered from a fire that year. Students at the school attended classes and worked in the agricultural fields during their stay at the school. Today, the school serves as a pre-K to twelfth grades as an independent boarding and day school, boarding approximately eighty percent of their students. The school has full amenities necessary for students, providing dormitories, classrooms, a library, a dining hall, athletics fields, and workout facilities.[155] The campus consists of 1,400 acres and was recently updated by *Niles Bolton Associates*. The campus master plan map provides a few key takeaways that could be applied at JDLH (Figure 2.11):

- There is a well-established clustering of building and structure types and uses, as seen through the maps color coding.
- The core of the campus radiates outward from the great lawn, which is surrounded by the critical structures of the school.
- Buffer zones are identified along the periphery to screen the campus from the highway and outlying roads.

[154] Ibid, 66-76.
[155] Niles Bolton Associates, "Rabun Gap Nacoochee School, Rabun Gap, Georgia," https://www.nilesbolton.com/rabun-gap-nacoochee-school (Accessed January 10, 2020).

- Parking is predominately located on the periphery and clustered for use by multiple buildings except for necessary areas for staff, ADA, and service use. In these cases, they are located on the opposite side of the buildings from pedestrians and therefore hidden from view.
- Sports fields are also on the periphery located adjacent to large parking for dual purpose use.
- Dormitories are located on the exterior of the main campus.
- The plan has addressed multiple entries and viewpoints of the campus from the exterior.
- Student active areas are confined and protected during traffic times of the day on campus and more open at slower times.
- The plan establishes the potential for future expansion through the addition of access roads and new drop-off routes.[156]

Key Takeaways:

- Develop the campus to provide full amenities necessary for the students.
- Integrate the takeaways observed from the campus plan listed.

[156] Ibid.

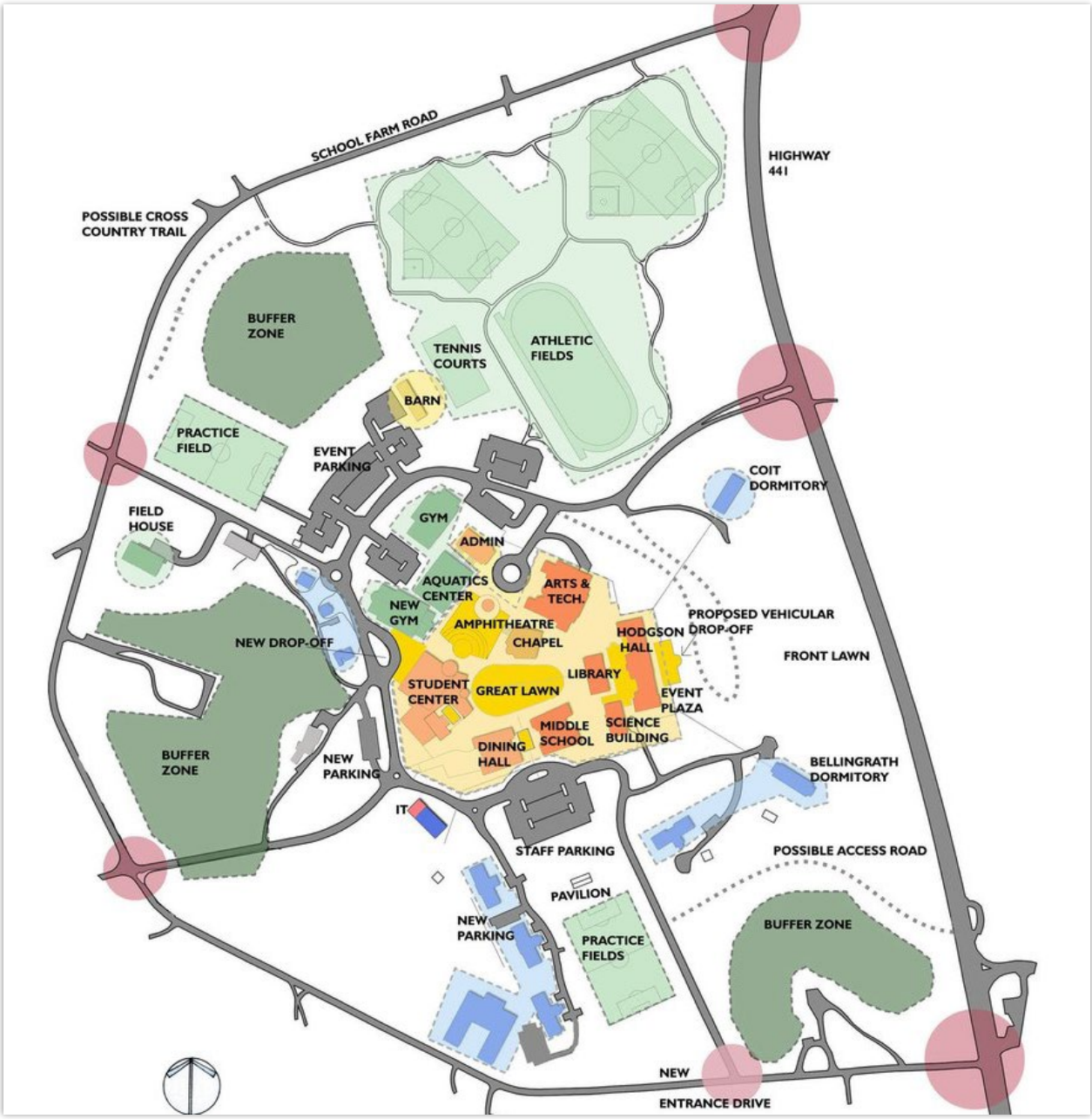


Figure 2.11 – Rabun Gap Nacoochee School Map. Source: *Rabun Gap Nacoochee School*, Niles Bolton Associates, January 10, 2020, https://www.nilesbolton.com/rabun-gap-nacoochee-school, Copyright 2020.

CHAPTER 3

JDLH's New Direction

In the last three years, two events have occurred that have had direct impacts on JDLH's future development and the development of this thesis. First, in December 2017, just before the school's closing in 2018, a South Carolina Senate Finance Committee and House Ways and Means Committee completed a feasibility study examining the school's facilities and program capabilities specifically looking at:

1. What agricultural educational program can be offered that aligns with the terms and purpose of the Dr. John de la Howe will?
2. What land management and operation changes are needed in order for the property and remaining assets to support the agricultural education programming mission of the will?
3. What would be the projected costs of and timeframe for these changes?[157]

The results of the feasibility study have since influenced the mission and vision of the JDLH School working towards becoming a Magnet School of Agriculture and South Carolina's Governor's School of Agriculture. The second event was the organization of the JDLH School Charrette in October 2019, facilitated with the assistance of the University of Georgia College of Environment and Design's Center for Community Design and Preservation. Both events helped to inform this work by providing information on the school's historic past, illustrating JDLH's connection to the community, and providing guidance for the school's future development.

[157] Senate Finance Committee and House Ways and Means Committee, *John de la Howe School Feasibility Study* (McCormick, SC: John de la Howe School, 2017), 3.

JDLH's New Direction: The Feasibility Study (2017 – 2019)

"The campus is beautiful and historic. JDLH is one of the oldest state agencies and needs to be preserved and remain in operation."[158]

De la Howe State School served generations of children as a home for kids throughout South Carolina for over two centuries. Over time, the school's purpose has become less focused on agricultural training and more on children of need, taking in children from the Department of Social Services and the Department of Juvenile Justice. As the school evolved to meet this growing need, the attendance at JDLH slowly declined as the school's purpose shifted. Unfortunately, this progression led JDLH away from its agricultural education roots. In 2017 the state legislature initiated a feasibility study into the operations and programs at JDLH. *The John de la Howe Feasibility Study* found that the school had four separate functions:

1. Farm and forestry operations: which were slowly being rebuilt and capable of becoming self-sufficient enough to support an educational program
2. An education operation: supporting only twenty-five students in 2017, all of which attended McCormick High School
3. A residence program: housing those twenty-five students and currently renovating the remaining cottages for future use
4. A wilderness program: one of the most effective programs on campus which served troubled middle school students before returning them to their homes[159]

The results stated that "other school districts have for over 20+-years implemented alternative school programs" like those offered at JDLH and at a far cheaper operating cost.[160] Overall, the feasibility study found that a great deal of work had gone into the revitalization of the farm and facilities, and therefore, determined that the school and farm's infrastructure should be utilized to

[158] Ibid, 5.
[159] Ibid, 4.
[160] Ibid, 6-7.

help revitalize the campus and return the program to addressing de la Howe's original intent of agricultural education for children. To accomplish this, the study recommended the school transition into a new Magnet School of Agriculture that essentially:

- Defines a new role and mission for the school
- Serves day students like de la Howe's will requested and directed
- Continues to grow the school's farming and forestry operations
- Expands the alumni program to encourage contributions to the school
- Establishes an agricultural and mechanical school with the potential for expansion
- Develops demonstration and experimental plots on new crops and practices
- Changes the name of the program to reflect the new mission[161]

Following these recommendations, the school closed in 2018 to redevelop its educational program and renovate its campus. The study concluded that the school's facilities could support the school's operations with some modifications, but that future growth would require additional facilities. An example would be the addition of an agricultural shop that would be capable of serving large farm equipment.

The new JDLH School of Agriculture is planning to reopen in August 2020 with a three-tiered approach to their agricultural education program utilizing classroom instructions, Supervised Agricultural Experiences (SAE), and FFA Intra-Curricular Experiences. The students will learn through project-based and competency-based education that requires students to learn by doing, allowing students to demonstrate their knowledge and skills through activities and projects. Utilizing these methods, the *Feasibility Study* estimates the school could serve approximately 100 day and residential students between 10th – 11th grade in its first year, reaching approximately 325 students between 10th – 12th grades by year six. In addition to these

[161] Ibid,11-12.

changes, it was deemed feasible that JDLH could become South Carolina's Governor's School of Agriculture in the future. Since this study, JDLH has been working with the state legislature to confirm the school's status as a Governor's School, creating the first agricultural-based residential program of its kind in the country. "The potential for John de la Howe is tremendous, especially in serving the students of South Carolina and the largest industry in the state."[162]

Key Takeaways:

- The farming and forestry operations should be maintained and developed as a means of financially and educationally supporting the school, students, and property as it returns to addressing de la Howe's original intent of agricultural education.
- The education and residency programs can operate as a magnet school of agriculture and has the potential to operate as a South Carolina Governor's School of Agriculture.
- The education program should utilize the latest methods of agricultural education, including classroom instruction, SAE, and FFA experiences, and the property should develop to meet the needs of this agricultural education program.
    - These educational methods will require indoor and outdoor educational spaces, project and experimental spaces, and demonstration spaces for both the students and the community to allow for experimental learning practices and new crop growth.
- The school has closed for modifications to its current facilities and operations; however, as the school grows, future additions to the school's facilities will be needed in order to support the school's educational operations.

[162] Ibid, 20-25 and 52. While completing this thesis work it was confirmed that JDLH would become South Carolina's newest Governor's School of Agriculture and open in August 2020 with 10th and 11th grade students.

- The school will initially serve approximately 100 day and residential students in its early years, eventually seeking to serve up to 325 students within six years.[163]

JDLH's New Direction: 2019 Governor's School Charrette

"The original historic vision and campus may be so sacred in the minds of board members, alumni, and current students that institutional leadership finds great difficulty in moving toward a new, updated, or expanded vision."[164]

As this section's opening quote from *Mission and Place* states, it can be difficult for people to move forward in an unknown direction for fear of losing what is important from the past. Joining JDLH's redevelopment process in October 2018, it became apparent to the author of this work that the school had many alumni, community members, and board members concerned about the school's future. Working through the school's history, meeting various staff members and alumni, and understanding the emotional significance present about the site, it became clear that retaining the JDLH community's support in this process would help in the transition. For this reason, the charrette[165] was selected for its ability to engage and include the community in the assessment process of the project.

By bringing various interest groups and individuals together, a charrette has the potential to address fears of change and ease any lack of trust community members might have to develop ideas and suggestions. Through an open and safe environment, charrettes allow the community to collaboratively address concerns, giving community members opportunities to share,

[163] Through conversations with the school, relaying additional details about the other SC Governor's Schools, and examining the current conditions of the school's facilities, JDLH has adjusted these numbers to admitting 60-80 students during its first year and seeking to accommodate for 280 students by year six.
[164] Kenney, 85.
[165] A charrette is a meeting, or series of meetings, in which stakeholders of a project attempt to resolve design conflicts and map solutions that are as beneficial to all parties as possible.

especially groups or single individuals. This allows the charrette, and specifically the charrette team, to concurrently address all aspects and interests in a timely and cost-efficient method that seeks the best solution.[166] For this thesis, the JDLH charrette had four key goals:

1. Gain community input on the future mission and vision of the school;
2. Identify community-defined sacred places and areas of concern with future development;
3. Allow the community to express concerns and offer suggestions to the plan; and
4. Initiate the design process, creating two-three rough preliminary designs.

What is a Charrette?

According to the National Charrette Institute (NCI), a charrette is a co-design process that ensures a minimum of three community input feedback loops through a collaborative and multidisciplinary process that results in a detailed feasible plan.[167] While this co-design process with collaboration and three community feedback sessions is an ideal situation, some projects rarely have the time to implement such an extensive process. This results in similar charrette style processes being carried out with varying degrees of success. However, if successful, a charrette has the potential to identify the most feasible and sustainable solutions to design problems as a result of purposeful community engagement. As such, the NCI stresses sustainable community planning through open, transparent communication and a shared learning cross-disciplinary process, which they stress is key to facilitating a successful charrette.[168]

The charrette process has three phases: research, education, and charrette preparation; the charrette; and plan implementation. Phase one - research, education, and charrette preparation generally takes from 1-9 months of preparatory time. During this phase, the planning team works

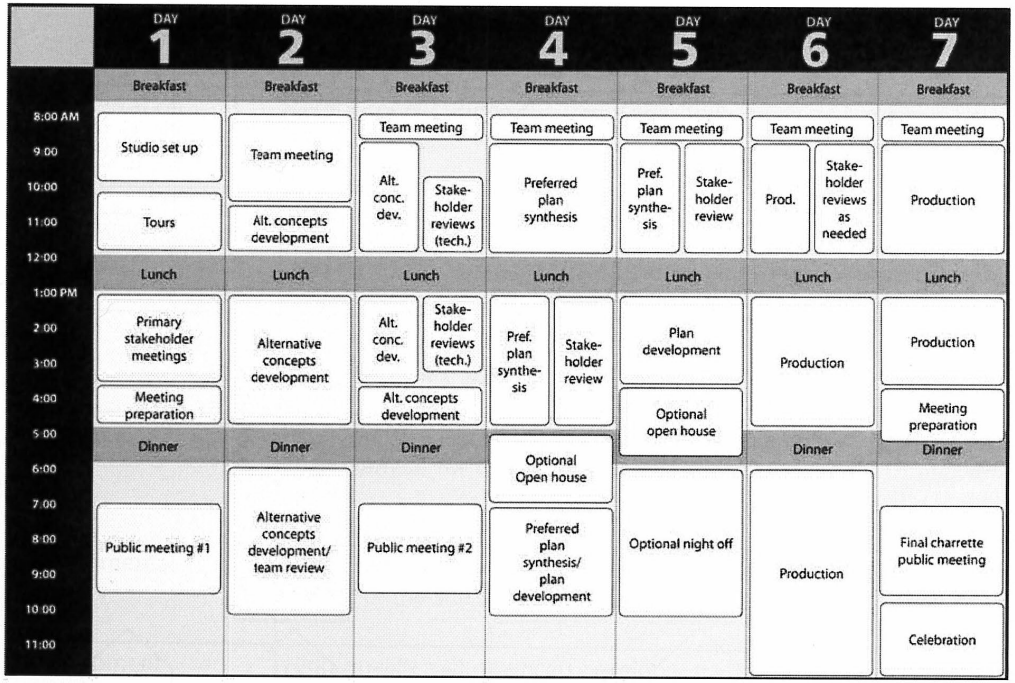
[166] National Charrette Institute, *NCI Charrette System Certificate Training* (Michigan State University: Board of Trustees of Michigan State University, 2019), 3-5.
[167] The National Charrette Institute is a subsidiary of Michigan State University. NCI, 4.
[168] Ibid, 5-6.

with primary stakeholders to assess the feasibility of the project and begins doing initial research to collect any necessary background data. The assessment looks for potential guiding principles and the expected final product while determining the charrette's schedule. When meeting with preliminary stakeholder's for initial input, the planning team is gauging the environment the charrette will be facilitated in as they begin to gather useful information into databases. This information could include site maps, charts, historical background, emergency access needs, transportation, existing plans, economic factors, environmental risks, etc.[169] Finally, the planning team begins preparing basic logistical needs, including determining an appropriate workspace, establishing a multi-disciplinary charrette team, and planning any pre-charrette meetings and material for the charrette team.

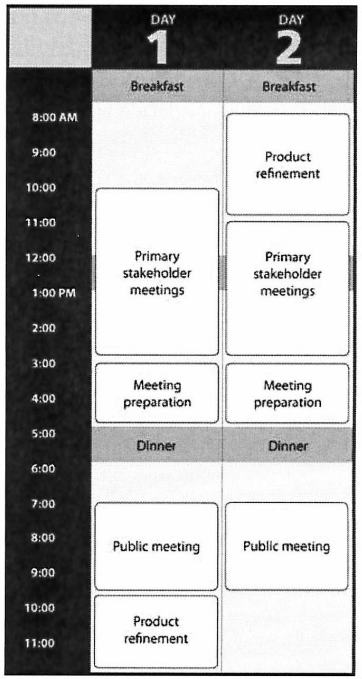
Following the NCI's standards, each charrette should include three feedback loops and result in a feasible design. Scheduling these feedback sessions is key to getting the appropriate amount of information and dictates from whom the information is gathered. NCI's breakdown of the "Full Charrette" separates the start-up as its own individual session, while three additional feedback loops occur during the seven-day charrette process (Figure 3.1).[170] In a 'Full Charrette,' the feedback loops are designed as open house meetings where community members are welcomed to provide their opinions on the design as it progresses. Any notes or comments are then filtered back into the charrette team for additional changes.[171] After the seven-day process, the charrette team presents the final work for one last feedback loop. Post-charrette, before the plan's implementation phase begins, the charrette team incorporates any last changes suggested before making the plan available to the community.

[169] Ibid, 13.
[170] Ibid, 9-11.
[171] Ibid, 11.

7-Day Charrette Schedule: For Complex Projects



4 - 6 weeks max.



Charrette begins with input session, then design begins

Review & Revise

Final Review

Figure 3.1 – NCI " Full Charrette" Schedule: Prior to the charrette, there is a planning, or start-up, phase not shown. Throughout the charrette the charrette team is collecting data and updating the designs for the next public meeting. Source: National Charrette Institute, *NCI Charrette System Certificate Training,* Michigan State University: Board of Trustees of Michigan State University, 2019.

Knowing that charrettes require a large amount of preparatory work and community collaboration to be successful, when is it appropriate to use a charrette? NCI states during high stakes projects, volatile political environments, projects that include imminent development, and/or complex design problems. The JDLH School is clearly under imminent development with complex design problems that are a consequence of political or stakeholder pressure. Furthermore, the NCI defines a charrette by its results, being able to create feasibility plans to include revitalization, infill, sustainability, comprehensive plans, and school plans, each of which could be of benefit for the JDLH School.[172]

The Planning and Logistics

The planning process for the JDLH Charrette began in Spring 2019 with the assistance of UGA CED's Center for Community Design and Preservation and initial meetings with JDLH's primary stakeholders. These preliminary meetings revealed the project's complexity, including the large size of the campus, the various invested stakeholders, a vast historic background, and the future vision of the school. With the school already under renovation for reopening in August 2020, it became evident that plans from this work would look to bridge the gap between current renovations and the school's future mission and vision. The charrette would be used to gain community input to identify sacred locations to the community while simultaneously providing feedback on conceptual design ideas for future land uses. This information, along with historical background information and primary stakeholders' information, gathered prior to the charrette, would be utilized to comprehend the significance of the site and evaluate each design decision. The remaining physical logistical needs were worked out through the cooperation and support of

[172] Ibid, 6-7.

the CCDP and the John de la Howe School, including transportation, housing, supplies, and food.

To fully comprehend the charrette process and to properly assist as a co-facilitator during the JDLH charrette, this author attended an NCI charrette training in September 2019, which offered insight into the effective organization and facilitation processes of charrettes. The charrette style selected for the JDLH Charrette would be an adaption of the 'Full Charrette' used by the NCI referred to as a 'Sprint Charrette' (Figure 3.2).[173] The 'Sprint Style' is the usual method utilized by the CCDP and was necessary for the facilitation of the charrette to ensure that enough team members could participate.[174] In facilitating a charrette sprint, the largest difference is that the preliminary feedback from primary stakeholders is gathered during the startup phase, while the charrette itself provides only two feedback loops due to the shortened timeframe. The preliminary feedback for the JDLH charrette was gathered between August- September 2019 through meetings with lead staff members in charge of the school's various facilities, including the farm and forestry operations, school facilities, and the general management of operations. Community input was gathered during this phase by attending an alumni meeting on site that allowed members to share their concerns and opinions on the school's future. As this preliminary feedback was gathered, material such as mapping data was generated, leading up to the charrette.

The charrette design team was recruited by list-serve emails throughout the UGA College of Environment and Design, flyers, and word of mouth. The desired charrette team was a mixture

[173] Ibid, 11.
[174] Knowing that all of the members would be college students/faculty it is difficult to ask them to take a week off to participate. Therefore, charrette sprints, which are only three-days, allow participants to only miss one day of class as the charrette can be partially completed over a weekend.

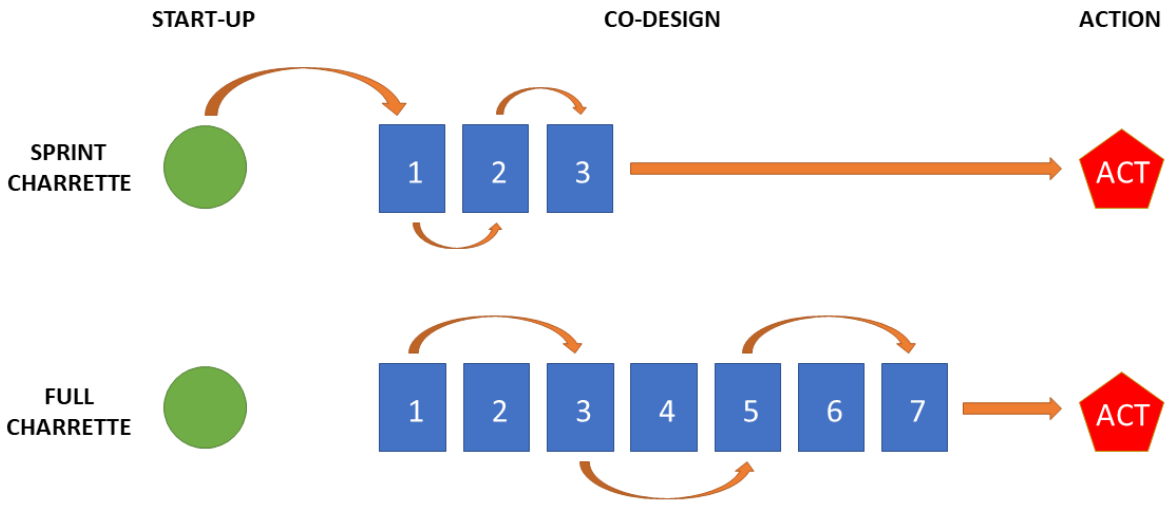


Figure 3.2 – Charrette Layouts: As the name suggests the 'Sprint Charrette' takes less than half the time of a 'Full Charrette' and the community input sessions begin during the start-up phase. The community input sessions are represented by the orange arrows arching between the days of the charrette, represented by the blue boxes. Source: National Charrette Institute, *NCI Charrette System Certificate Training,* Michigan State University: Board of Trustees of Michigan State University, 2019. (Recreated by Brandon Platt from NCI Training Sessions)

of twelve-fifteen MLA, MHP, and BLA students, along with two-three Agricultural Education students who could provide background information during the design process. Due to the project scope, the large size of the site, and the limited time to implement a sprint style charrette, the facilitators initiated the charrette by holding a preparatory startup meeting to familiarize the design team beforehand. At the meeting, the team was introduced to the project, the history, and layout of the site, the schedule, and provided with basic logistical details. (See Appendix A – Project Brief). The design team included two facilitators, a UGA professor and a student of Agricultural Education, and four UGA MLA students with varying backgrounds.

John de la Howe Charrette – October 2019

The JDLH Charrette was held from October 4-6 on JDLH's campus, engaging community participants from the Board of Trustees, Alumni, and Staff members on the school's

historical past and the school's new mission and vision.[175] The initial input gathered from the charrette identified the areas sacred to the community and a general assessment of the ideas and feelings of the community towards future development. The first day was used to obtain valuable feedback on the community's thoughts of the school's future development as well as familiarize the design team with the community and the property. Through a mapping activity, the community was able to identify places of importance on the JDLH property in an open and welcoming environment that built trust between the community and the design team and reaffirmed the trust between them and the JDLH community members. These places of importance were recorded and merged to develop a map illustrating sacred places to the community, like the Branch House or 'The Dairy Barn' (Figure 3.3). A second activity identified the potential needs of future students and faculty members, which later assisted the design team in the creation of programmable elements for the site's design.

With the first feedback loop complete, the design team separated for tours of the campus with various primary stakeholders to gather user-oriented interpretations. Focuses were on agricultural/farm needs, academic needs of the school and student use, and any future developments to the site that would be required to bring the school up-to-date. These topic-specific tours conveyed the ideas for future land use and introduced the large site to the design team providing a variety of interpretations. The results of these activities and the tours helped to initiate a positive relationship with the JDLH community and allowed the design team to establish a preliminary list of programmable elements to incorporate into the design. The list included:

[175] See Appendix B – Community Participants for full list of community participants for Day 1. Unfortunately, there was only one participant for Day 2 and due to time constraints on Day 3, the charrette team failed to take attendance at the final presentation.

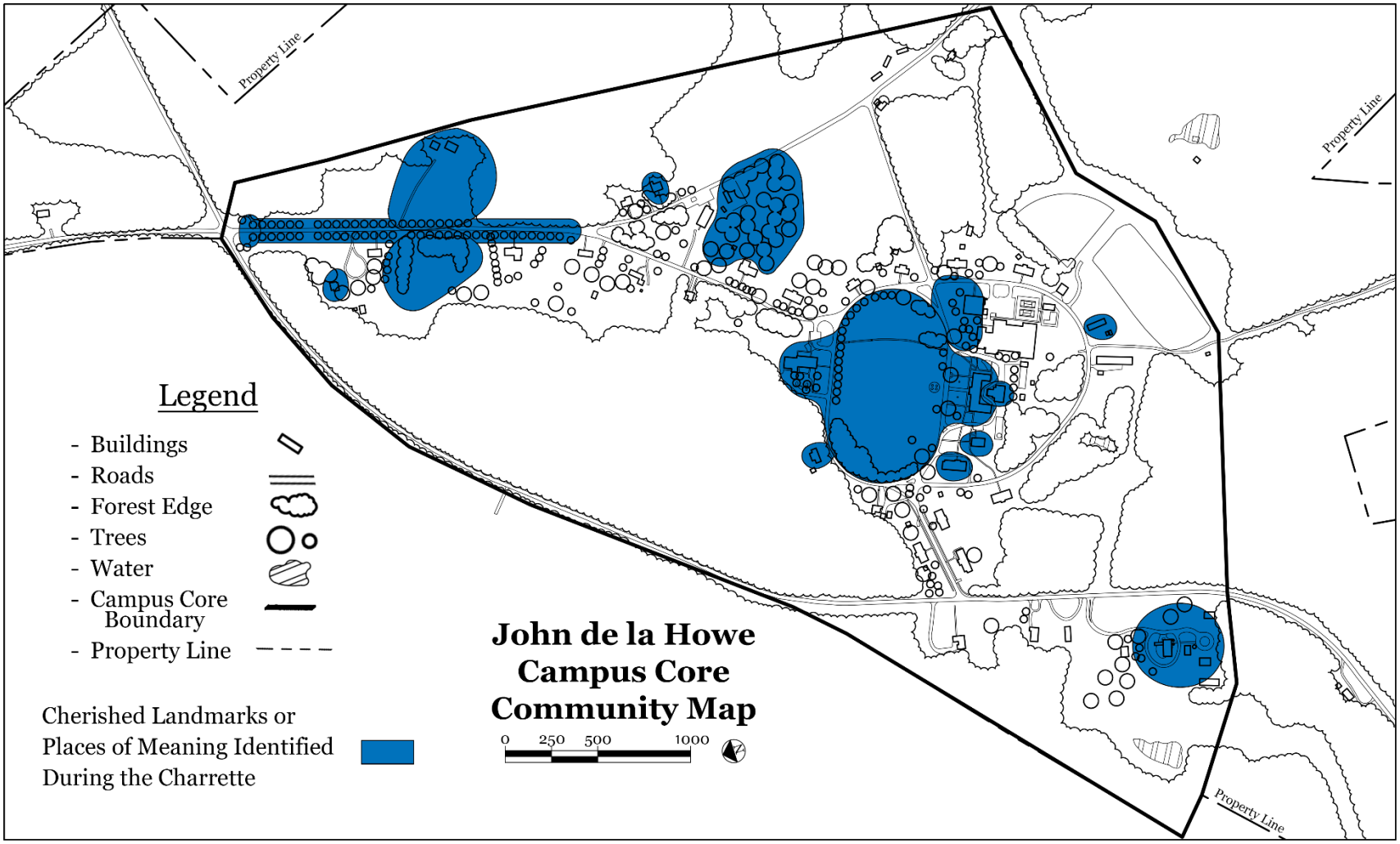


Figure 3.3 – JDLH Campus Core Community Map: This map is an accumulation of the locations they identified as sacred places during the charrette' s first activity. The were locations identified outside the campus core area, such as the " Museum Tract," the tomb, the Wilderness Program and Ropes Course, and others. (Created by Brandon Platt)

- Entry – welcoming, wayfinding, signage, beauty
- Dairy Barn – event space, agritourism, visitor center, retail shop, petting zoo, creamery
- Housing – students and staff, visitors, existing vs. new, cottage model vs. dormitory model, RAs and private duplexes
- Plantings – allees and roadside, entry foundation plantings, tree management, outdoor seating areas
- Outdoor classrooms/labs – flexible, shaded
- Parking – phase I, 80 students with 15-20 faculty and staff, to phase II, 325 students
- Environmental education center
- Ropes course
- Wilderness camps – scouts, retreat recreation, environmental education
- Food plots/hunting
- Animals/crops – fields, greenhouses, community gardens, heritage crops, aquaculture, beekeeping, pastures
- Connectivity – sidewalks, streets, trails, lighting, wayfinding, alternative transportation
- Lakefront – swimming, fishing, canoeing, linear park
- Recreation areas – outdoor plaza, sports fields, a student center, intramural sports locations, a quad, pool
- Administration – offices, maintenance areas
- Branch House – museum, alumni meetings
- Demonstration farm – two barns
- Farm maintenance buildings

Utilizing these programmable elements and the community's initial feedback gave the design team an understanding of JDLH's history and the people connected to the site. Day two then permitted for further investigation of the site in order to produce preliminary design concepts. The day allowed the design team additional time for site walks to identify underutilized sections of the campus for potential infill; to investigate concerns centered around maintaining the natural topography and hydrology of certain locations; and examine locations suitable for future development that did not interfere with the existing historical integrity of the

site. Unfortunately, while only one stakeholder was able to attend the second feedback session, the preliminary conceptual designs illustrated the need for the refinement of the design to a single preferred plan.[176] To simplify the scope of work, the team identified eight zones of influence around the campus that focused on potential land uses that could be designed in manageable chunks rather than attempting to produce one over-arching design (Figure 3.4). The design team was able to work in collaboration with each other on overlapping programmable elements, such as hiking trails that progressed through each zone, to produce illustrative plans and perspectives for the final presentation.

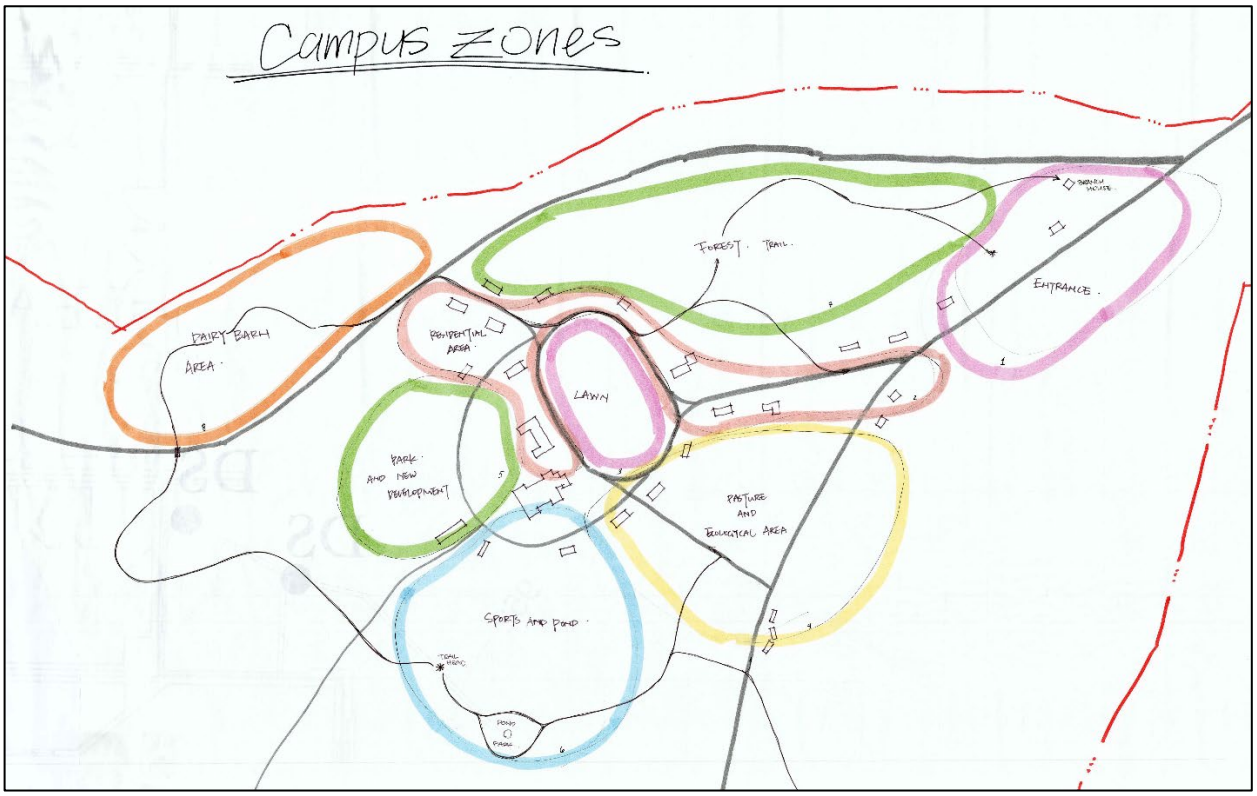


Figure 3.4 – Campus Zone Map: Created during the charrette to help breakdown areas by common themes. Used to establish locations of concentration for the design team to focus on when producing the final plans and perspectives. (Created by 2019 JDLH Charrette Design Team)

[176] Note: Not having a feedback session was a new experience for me and frankly left me dumbfounded on what to do, not having experience with this circumstance. However, by working through it with my design team, we were able to move forward regardless in the design process.

On the final day of the charrette, the design team was able to produce detailed conceptual designs for the JDLH community and staff to review. Team members were asked to present their work and explain how they incorporated various programmable elements into their respective zone. It was emphasized during the final presentation that these designs would be refined further during the completion of this thesis work (Figures 3.5 to 3.13).

Starting at the school's main entrance, the first of these conceptual designs focused on providing guests and visitors an appealing view on entering the campus (Figure 3.5). Visitors would be able to check-in at 'The Branch House' welcome center and have the opportunity to

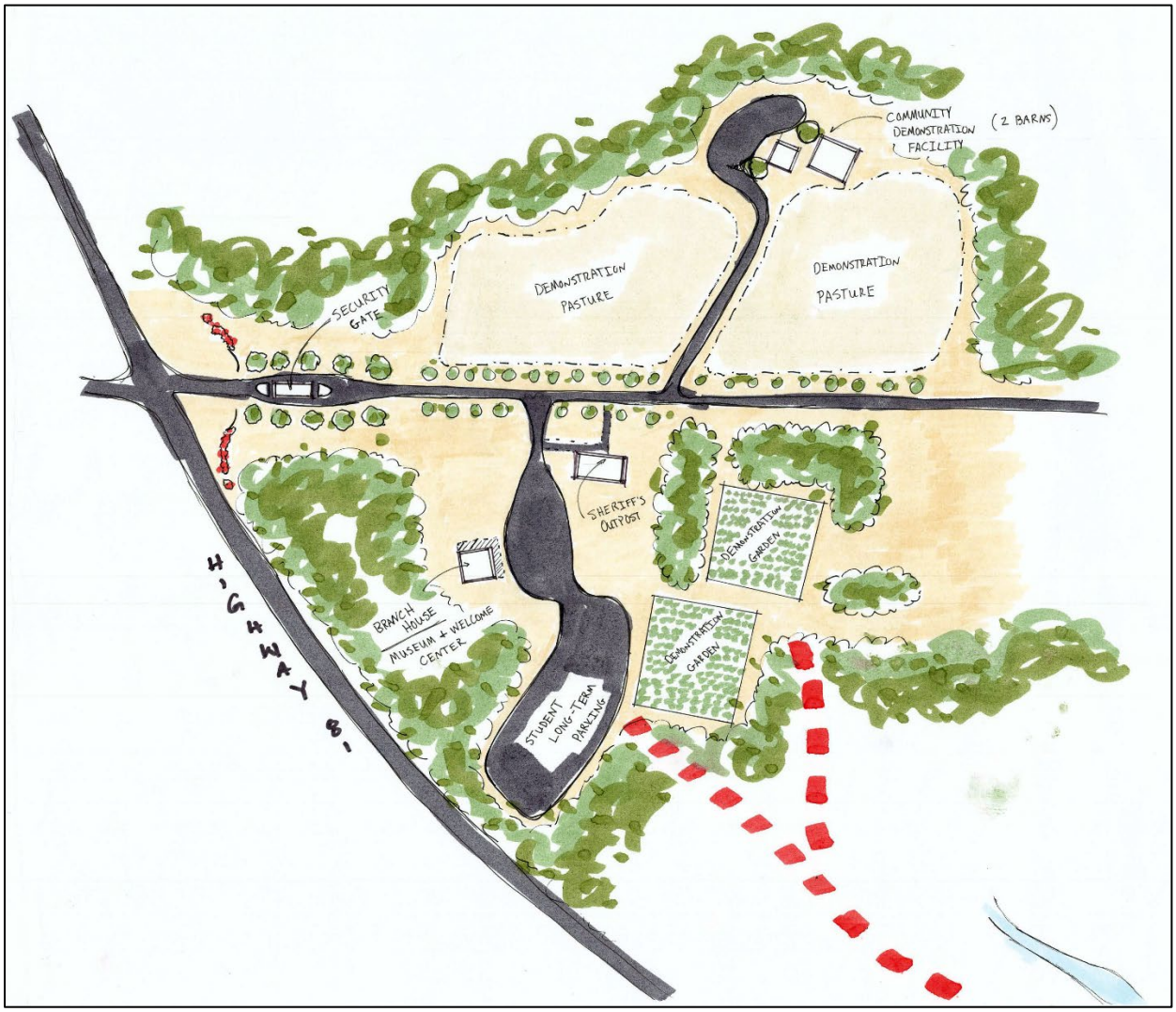


Figure 3.5 – Main Entry and Visitor Area (Created by Brandon Platt and Saadia Rais)

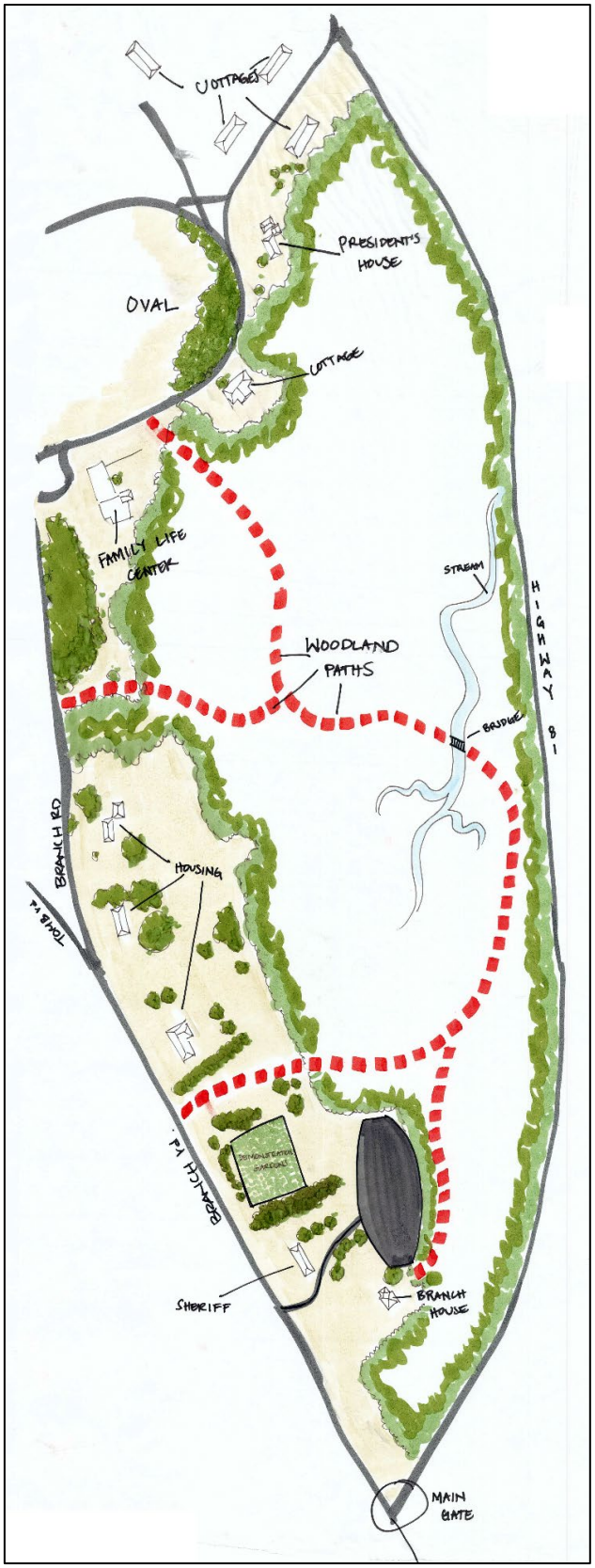


Figure 3.6 – Woodland Trails (Created by Saadia Rais)

visit various demonstration gardens and pastures. To ensure that there would be enough parking for student vehicles and limit the visual effect of larger parking lots closer to the campus area, a large long-term parking lot was established. This parking lot would be partially obscured by the wooded area and near the security outpost allowing the campus police to patrol the parking lot. The red dotted lines represented trails that would encircle the campus connecting different portions of the campus core. Overall, this design offered potential use for underutilized areas of the campus, though there were concerns about the parking lot's size, location in the woods, and views of the parking seen from Highway 81.

A second similar plan provided an example of the trail network that could travel through this wooded area (Figure 3.6). One of the largest concerns about developing in this area was the rolling topography and small stream. In retrospect, the community liked the

idea of keeping this area as a green buffer to Highway 81 in order to maintain the campus' interior edge.

Moving to the center of campus (or the campus core), the lawn area was emphasized by the community as a sacred location (Figure 3.7). As such, the designers sought to maintain its integrity by preserving the viewsheds in the area, when looking at the lawn and when looking out at the existing surrounding buildings. Sidewalks and curbs were recommended to formalize the area and provide directional cues and safety for pedestrians. A student plaza was recommended in front of the cafeteria for students, while the lawn was recommended to remain open for larger

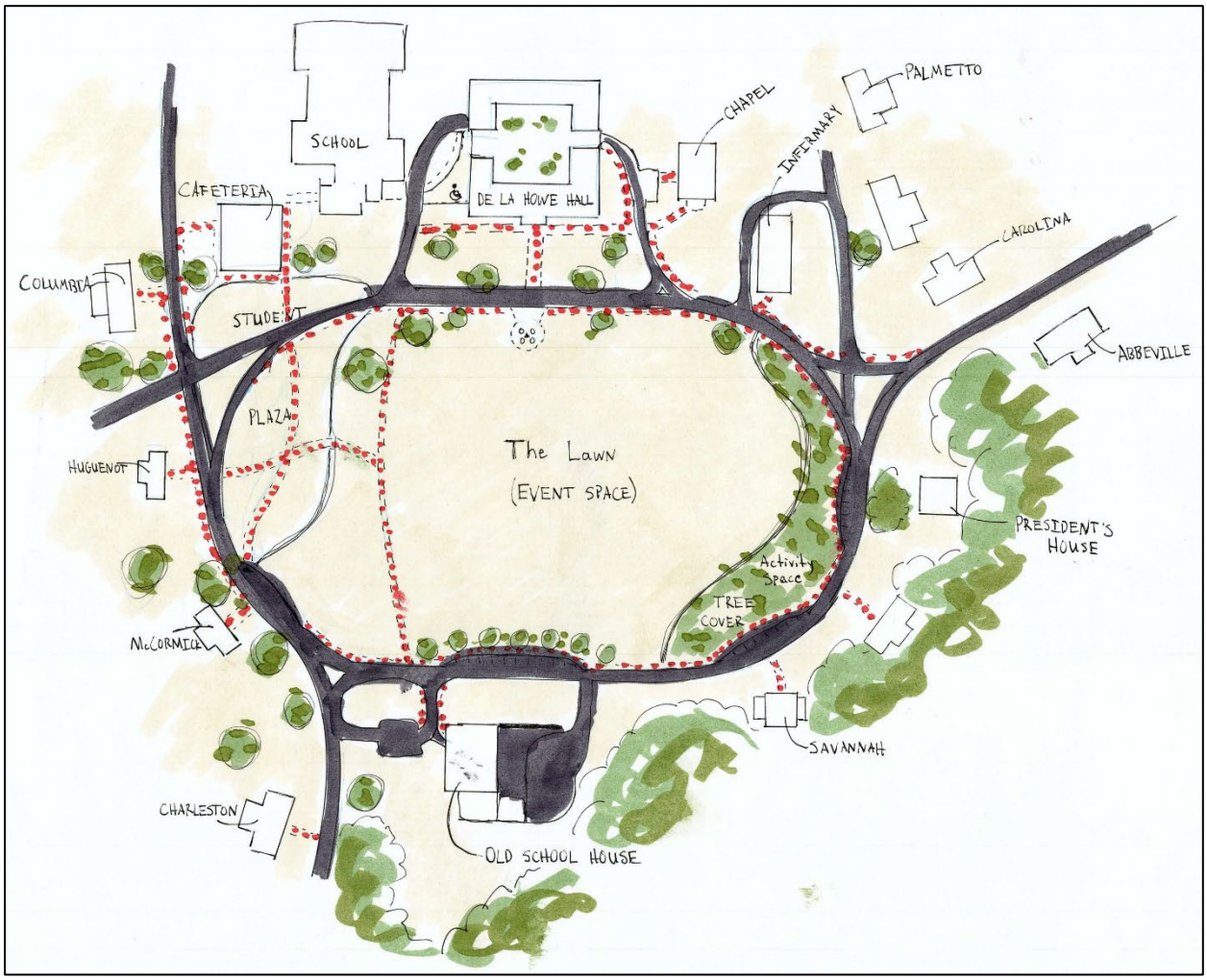


Figure 3.7 Campus Core, The Lawn (Create by Brandon Platt and Saadia Rais)

events, like graduation ceremonies. Some parallel parking was recommended around the oval for ADA and visitor parking, with the stipulation that it not interfere with the existing viewsheds of the historic buildings. The design was well accepted, though there were concerns from the design team focused on if the parking was a viable option or not.

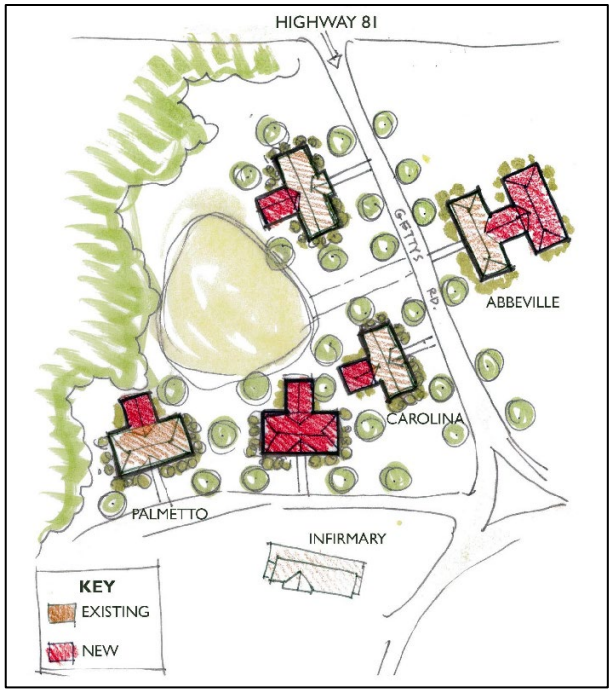


Figure 3.8 Cottage Infill and Extensions (Created by Jennifer Lewis)

Another programmable element that became challenging throughout the design process was accommodating for enough housing for students (Figure 3.8). One solution offered was the infill of gaps between cottages and the extension of existing cottages by adding additions to the rear of the buildings. These extensions could be done in a way that would not interfere with the cottage's existing image and provide additional rooms for students. The cottage extensions could double the occupancy of each cottage while maintaining the current residential staff needs. There were concerns about the feasibility and cost of bringing these structures up to code that

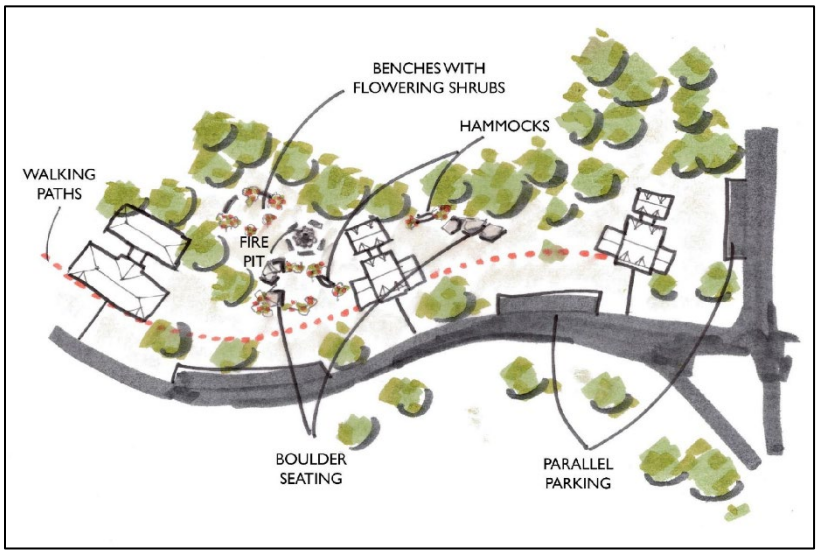


Figure 3.9 – Cottage Extension and Outdoor Spaces (Unknown Creator)

needed to be investigated by the school's staff. In order to provide the students with outdoor activity space, the design team suggested small spaces, such as benches and firepits, between the cottages (Figure 3.9).

An alternative location for cottage infill was the wooded area along Gettys Road (Figure 3.10). The illustration offered the potential addition of six cottages and two duplexes as well as maintaining a natural wooded area between. The cottages would be located a little off the road, relying on sidewalks for access while the additional duplexes would join the existing three along Tomb Road. A trail cutting through the wooded area provides quick access for the more distant residences from the school. Gettys Road has seen the addition of on-street parallel parking and

Figure 3.10 – Woodland Cottages and Natural Area (Created by Felipe Barrantes)

the addition of sidewalks and shade trees for easier pedestrian travel. Well accepted during the review, this plan offered another alternative to the school's housing challenge, while leaving much of the pre-established locations untouched.

During the review, the last housing option was the utilization of de la Howe Hall as a residential hall and the eventual addition of a mirroring residential hall behind it, enclosing what would become an interior courtyard for students (Figure 3.11). This image illustrates this in the bottom center as a quad. Also illustrated in this option is an extended parking lot for faculty to the left of the school and the addition of another education building in the area. The top left of this image displays the potential location for an additional four education buildings and a smaller parking lot. After investigating this location, the design team offered suggestions for educational facilities and potentially outdoor experimental labs due to the convenient access to a small pond and forested area.

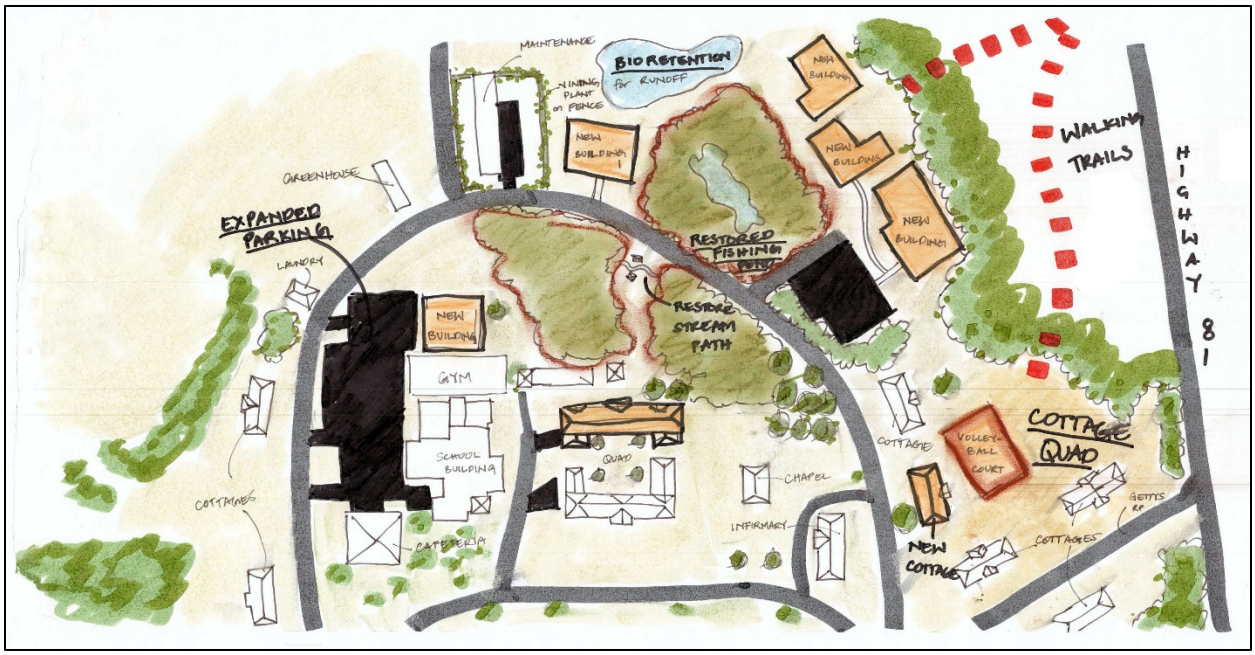


Figure 3.11 – New School Buildings (Created by Saadia Rais)

Examining other areas of the campus led to a redesign of a recreation and trail garden area. School sports were mentioned, though determining which potential sports would be offered by the school or just as intramural teams had not yet been decided (Figure 3.12). This plan offered a refurbished baseball/softball field, four tennis courts, and a large open field that allowed for flexible uses. Similarly, mentioned during the charrette was the need for additional greenhouses. The plan offered two additional greenhouses and space for an outdoor trail garden. Entering the wooded area through a designated trailhead would also allow student's access to a potential picnic area or agricultural labs.

Figure 3.12 – Trial Garden and Sports Complex (Created by Deborah Kim)

The final area examined during the charrette was 'The Dairy Barn,' which was designed as a visitor and community space (Figure 3.13). 'The Dairy Barn' itself would continue to be utilized as a rentable event space for community events, while its surrounding area could be developed to represent the core functions of an agricultural school. Heritage crops demonstration gardens and animal display buildings could help educate visitors to the school's work while another portion could be established as a potential farmers market for the community and school to share their produce. Towards the rear of 'The Dairy Barn,' utilizing the natural slope to the pond, an amphitheater could allow for small events. These changes take into consideration the current use of 'The Dairy Barn' as a community space and work to enhance that atmosphere and its usability. All of these design considerations offered from the charrette were attempts to add or

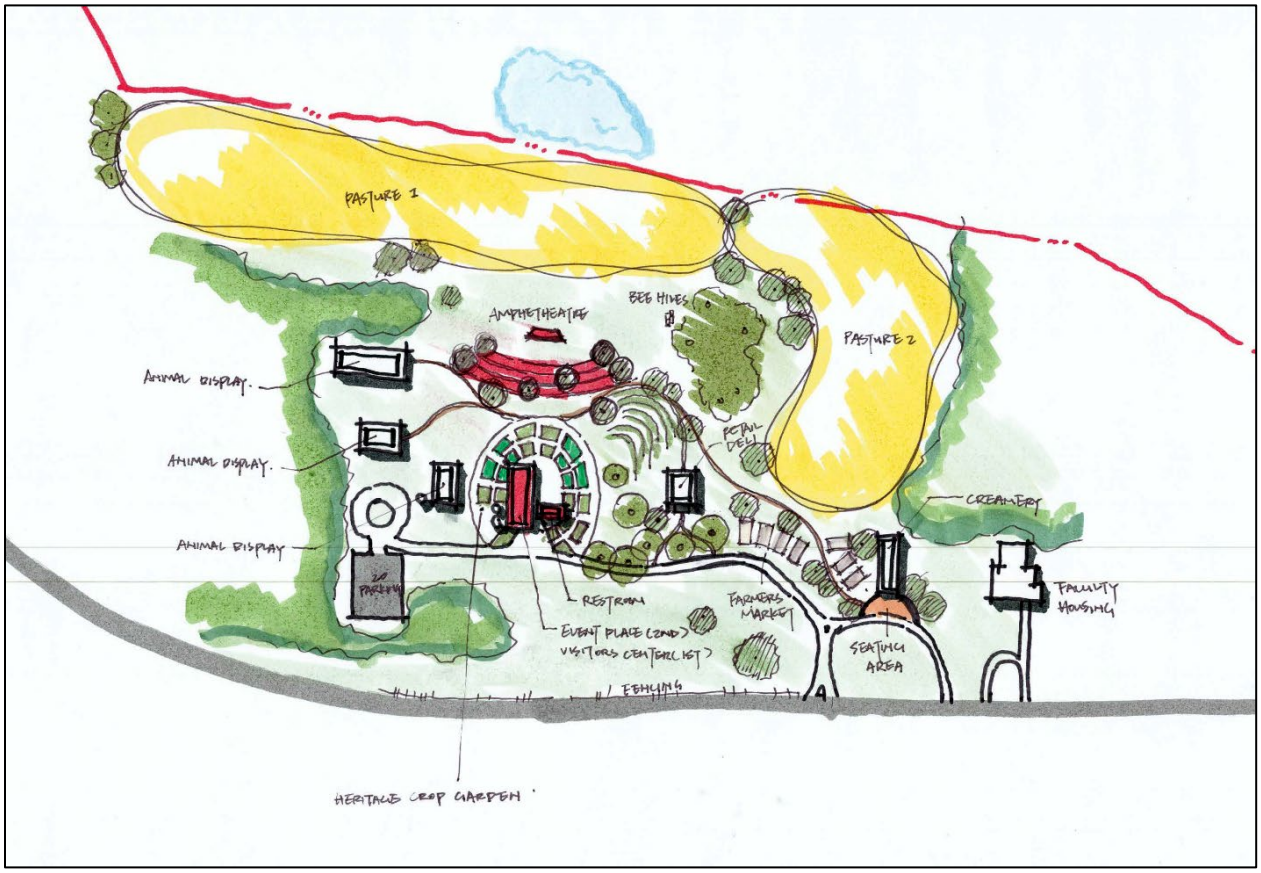


Figure 3.13 – 'The Dairy Barn' (Created by Ruohan Li)

modify the existing conditions of JDLH's campus without damaging or altering the historical significance JDLH has maintained.

Post Charrette Reflections

The feedback and conceptual design produced from the charrette provided a plethora of information for the development of this thesis. Going into the charrette, its purpose had four goals:

1. Gain community input on the future mission and vision of the school;
2. Identify sacred places to the community and areas of concern with future development;
3. Allow the community to express concerns and offer suggestions to the plan; and
4. Initiate the design process, creating two-three rough preliminary designs.

Of these four, the charrette accomplished the first three, collaboratively gaining community input to identify sacred places and allowing the community to express their concerns about the school's future mission and vision. While the fourth goal was not accomplished, the charrette did produce one well-established preliminary design that allowed this thesis some references moving forward.

Perhaps without fully realizing it at the time, this charrette also helped establish the methodology and approach of this thesis. By attempting to understand JDLH through historical lenses and working to adapt the campus to its future agricultural educational needs allowed the design process to take into consideration sacred places over pure development. These lenses offered rationalization for preserving locations otherwise seen as available for infill and forced the design to categorize the campus into zones based upon commonalities. Subsequently, the charrette also revealed other things of value, including some additional background research

needed and additional evaluation and analysis of JDLH's existing conditions. Included in these were:

1. A better understanding of cultural landscapes and historic preservation best practices and specifically the development of campus master plans with an emphasis on the preservation that would be needed to propose best guiding principles.
2. The need to research how schools have developed and planned for additional housing for students and faculty. Examining case studies that include other residential high schools, Governor Schools, and how historical campuses have added additional buildings to campus without damaging the campus's integrity.
3. Research best practices for the addition of parking lots on campuses, including potential locations, the separation between short-term vs. long term parking, and how to plan for the need for specialized parking for ADA and visitor parking.
4. The school will eventually need additional educational facilities, including new buildings, which will require additional research into building placement strategies, including how to plan for circulation and access to the buildings.
5. A more defined campus zoning and/or property boundary of the site is needed to determine proper land use and help to categorize/simplify the planning/development process for each zone.
6. A refinement/update of the list of programmable elements will be necessary for the final design before concluding this work.

Ultimately, after conferring with this thesis' committee, this charrette altered the scope of this thesis, no longer focusing on the creation of a conceptual plan that would dictate the layout of the campus, but instead offering the school guiding principles that could be utilized to support the development of the campus in a way that would preserve its historical past. While the charrette's timing may have been very early in this thesis process, the results have been useful for this work. This initial piece of this thesis, and utilizing the background research that came as a result, allowed for a well-informed conceptual design based upon comprehensive analysis and evaluation.

Key Takeaways:

- Produced a preliminary conceptual design and community feedback to improve the design.
- The charrette provided a preliminary list of potential programmable elements to include in the final design based upon feedback from the JDLH community.

- Helped to initiate a design approach that focused on preserving the community and historically sacred locations on campus.
- Established a breakdown of the campus into zones based upon commonalities, thereby allowing the design to be completed in manageable chunks rather than in its entirety while keeping uniformity across the site.
- The charrette provided community input that revealed sacred places on campus and an understanding of the concerns about the school's future mission and vision.
- Revealed areas of research and analysis that would be needed to successfully develop guiding principles, including background information on cultural landscapes, historical preservation, student housing, parking, and the addition of new educational facilities as well as a more in-depth evaluation of the campus.

CHAPTER 4

Existing Conditions, Analysis and Evaluation

With an understanding of how the site has developed over time and the future vision for the site, this research can now move into mapping existing conditions, analyzing various aspects, and evaluating the site's opportunities and constraints. As noted earlier, the research method would merge the CLR process with the landscape architecture design process to inform the development of guiding principles. In learning, researching, and working through these processes in tandem, the author has come to understand that while each process's outcome can be different, the reality is that the phases of each process are the same. Both processes work through similar inventory, analysis, and a development of needs to create management programs or designs. The difference between the processes is the level of focus they choose to pursue from their disciplines' perspectives and at what point in the process they choose to stop pursuing further detail. So far, the result of this work has been a lengthy investigation into the history and future of JDLH. Continuing this thesis, this work will examine the existing conditions of the property and campus, provide critical analysis of the campus core, and evaluate the campus core for opportunities and constraints before reviewing the takeaways accumulated throughout the research and analysis. Merging the results of this work with the takeaways from previous chapters will guide principles that can then be applied in creating a conceptual design for JDLH.

Existing Conditions: Property Description

The 1,310-acre JDLH property is located in McCormick, South Carolina, along the Little River and Long Cane Creek tributaries of the Savannah River (Figure 4.1).[177] McCormick County is a relatively small county with just over 10,000 people and a land area of approximately 394 square miles (Figure 4.2). The city of McCormick, located southeast of the property, is within a 10-minute drive (8 miles). The property is on a peninsula bounded by the two tributaries which merge at the property's southern tip. To the north and just inside the property line are woodlands and South Carolina State Highway 81. The surrounding area is heavily forested falling within Sumter National Forest, as well as having Elijah State Park and Baker Creek State Park near the site. There is also a small but active retirement community called Savannah Lakes Village and several small farms that have shown interest in and support of the school.

The interior of the JDLH property includes managed woodlands, pastures, farmland, and a few small ponds that define the historic agricultural campus (Figure 4.3). The managed woodlands are a combination of mixed hardwood and pine varieties, including Longleaf Pine and Loblolly Pine. The farmland is predominately used for row crops while the pastures are utilized for a mixture of animals, including cattle, horses, goats, and pigs. On the southeastern tip of the peninsula is the JDLH Wilderness Program and Ropes Course, which has been in operation since the late 1980s. The southwestern portion of the peninsula is the protected Loblolly and Short Leaf Pine area known as "The Museum Tract," which is the location of John de la Howe's tomb and former Lethe Plantation site.

[177] J. D. Lewis, "McCormick County, South Carolina," https://www.carolana.com/SC/Counties/mccormick_county_sc.html (Accessed February 16, 2020).

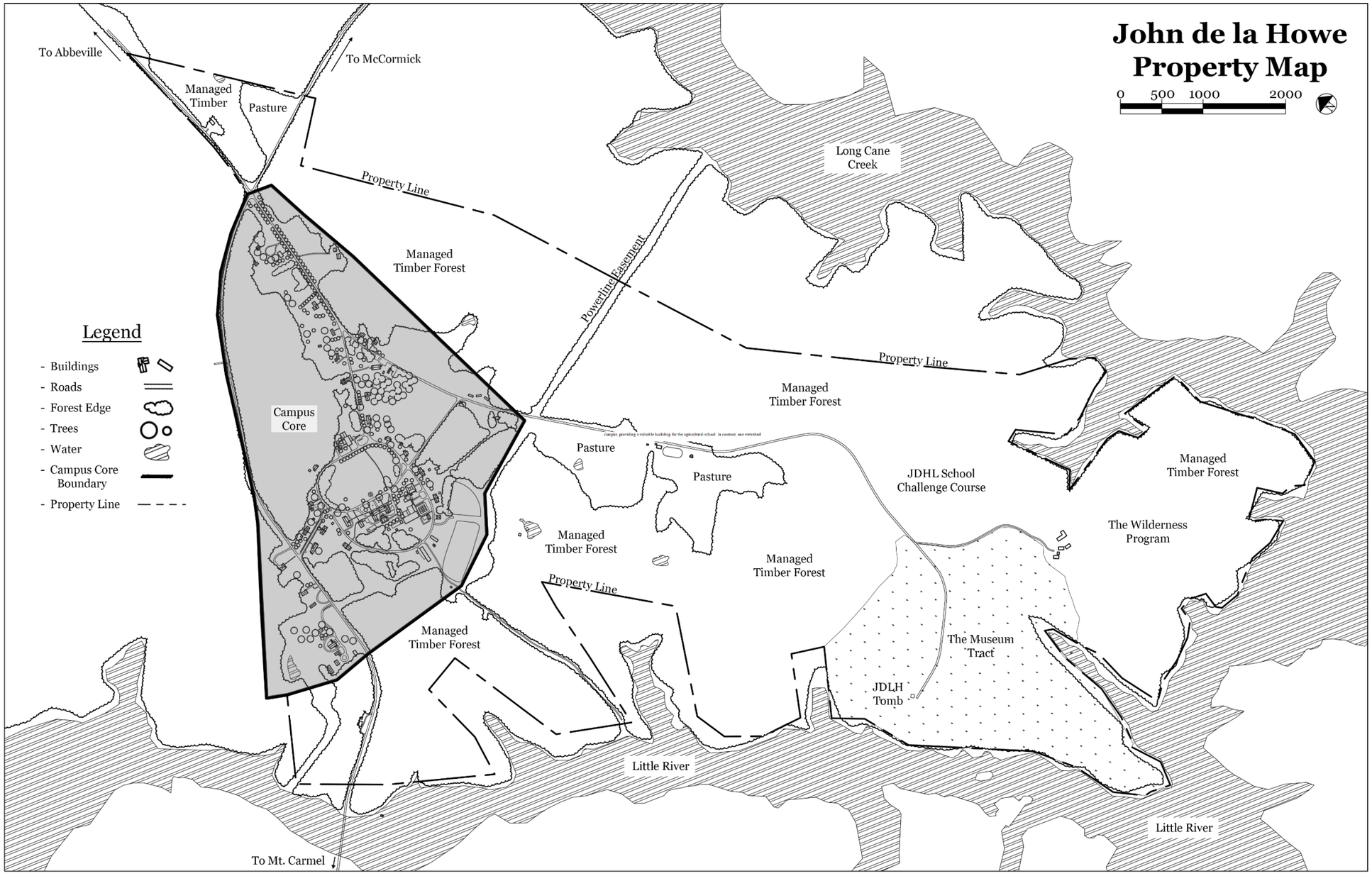


Figure 4.1– JDLH Property Map: This map illustrates the current property holdings of the JDLH School. During this work it has been discovered that the “The Museum Tract” does not encompass the entire peninsula, where the tip of the peninsula is not a part of the National Registry of Natural Landmarks. However, without proper surveying and mapping it is recommended to remain protected as previous maps have shown as a part of the conservation zone. Another detail is the identification of the exact property boundary on the peninsula, currently under debate with some community members believing the property line is on the water at some points and others believing there is a buffer like most properties along the river. Again, this work utilized previous mapping to estimate the property lines and it is recommended additional historic research into the property’s history be done as well as surveying to confirm the modern property lines. (Created by Brandon Platt)

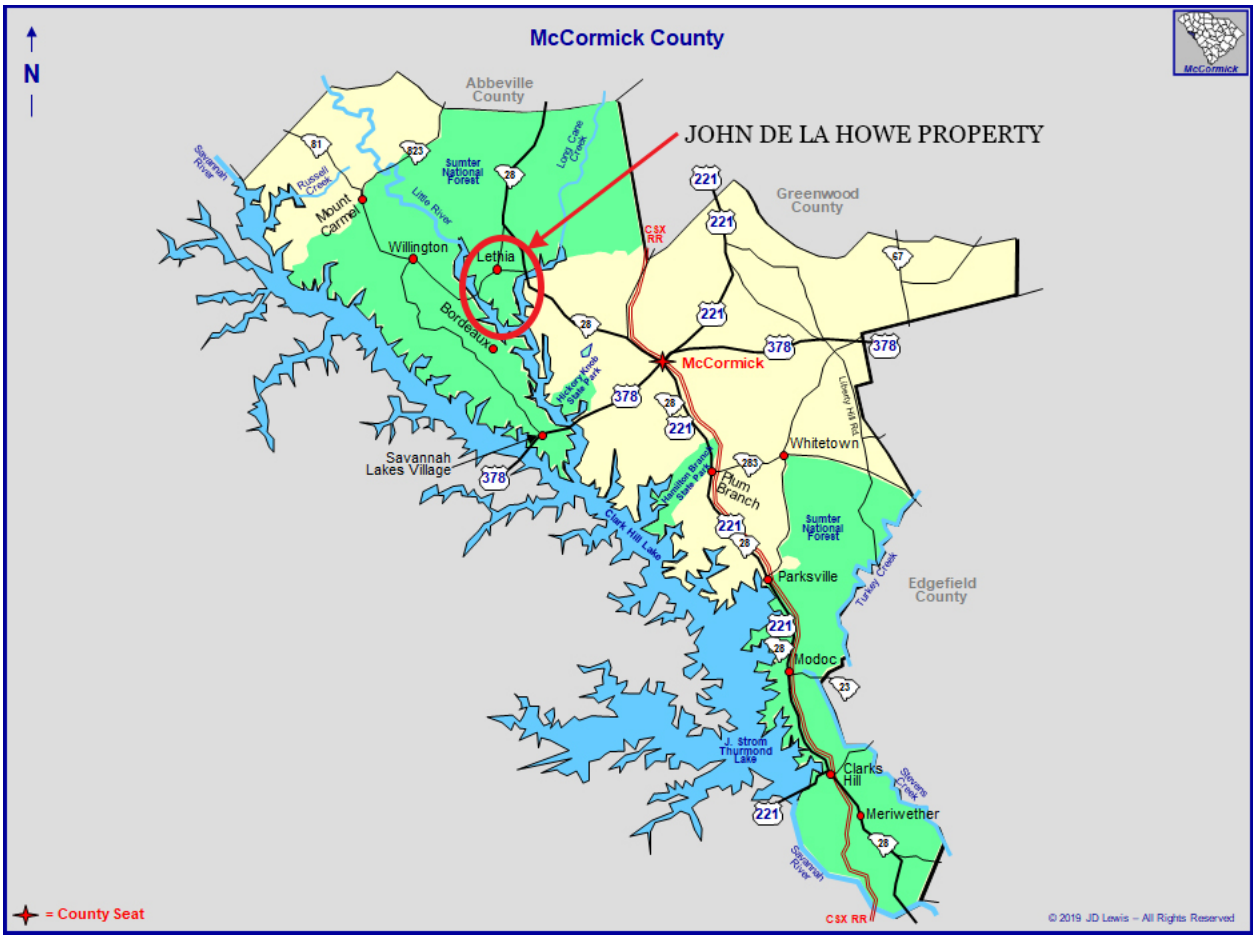


Figure 4.2 – McCormick County Map: A map of McCormick County identifying the location of the JDLH Property. Source: JD Lewis, March 4, 2020, retrieved from https://www.carolana.com/SC/Counties/mccormick_county_sc.html Copyright 2019. (Annotated by Brandon Platt)

The natural features of the forest and pastures directly abut the campus core and blend with the outlying campus structures. These soft edges help ease the transition of nature to the built environment adding natural beauty to the campus feel and reinforces the school's vision of academic pursuits in agricultural education. The campus interior core helps to emphasize their academic intentions, emulating traditional American campus design with a Central Mall that is defined by its surrounding brick academic structures.

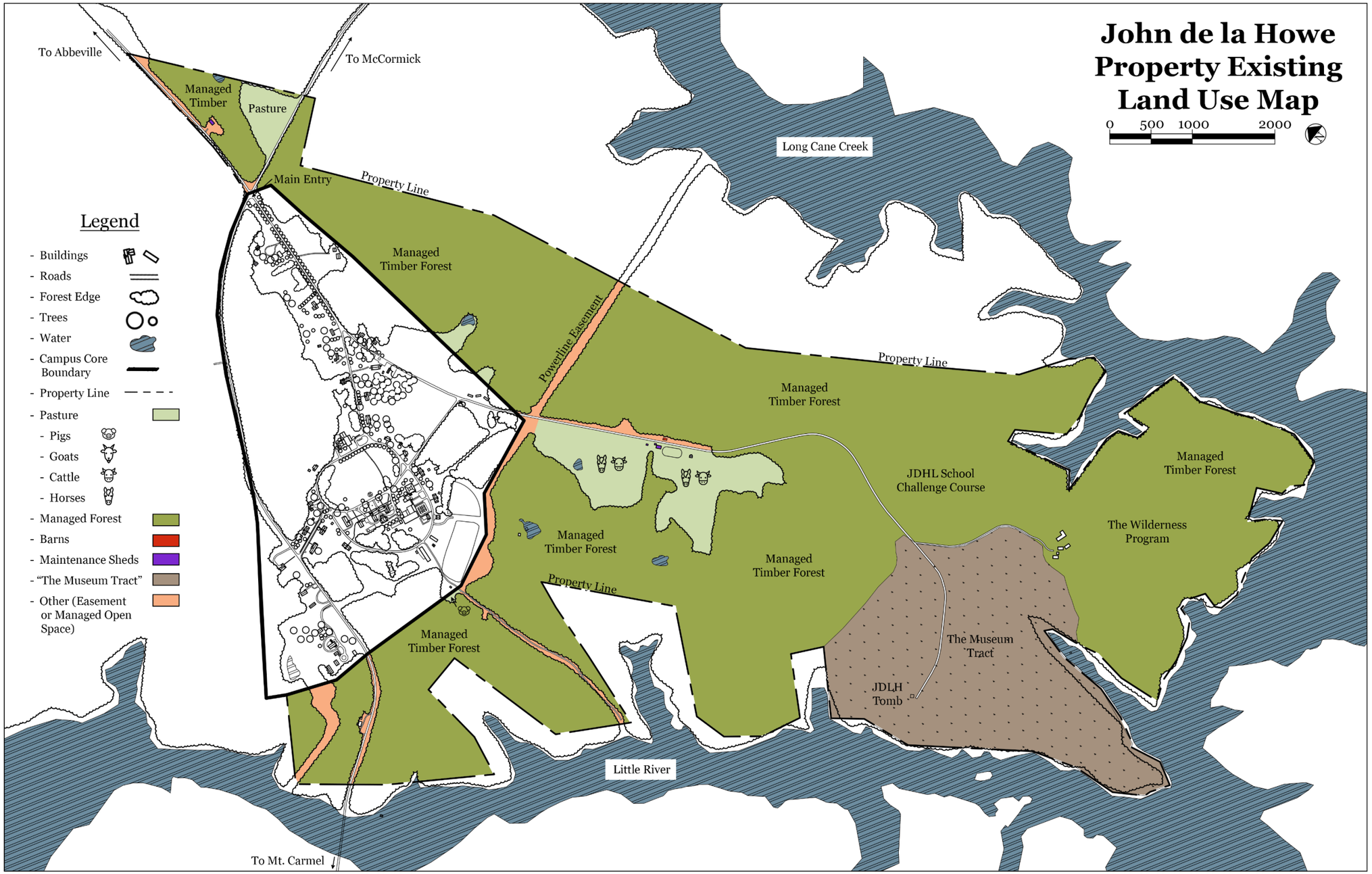


Figure 4.3– JDLH Property Land Use Map: This map shows the current agricultural land use of the property, including identifying the large 'Museum Tract' on the southwestern tip on the peninsula. (Created by Brandon Platt)

Key Takeaways:

- The natural beauty and remoteness of the location helps to define the campus history and vision as an agricultural school.
- The soft edges that aid in the transition to the campus core should be maintained.
- The Central Mall area should be maintained as the symbolic inner core of the school.

Existing Conditions: Campus Core Description

The campus core, located in the northern section of the JLDH property, blends nicely with the agricultural uses, comprising of approximately 313-acres of land, including community spaces, educational facilities and residential buildings, some pastures and crop fields, and woodland buffer zones (Figure 4.4). JDLH's existing educational facilities are relatively close to the farm facilities, pastures, and crop fields (Figure 4.5). The managed timber forests create a pleasant backdrop, or edge, for the fields and in the past contained hiking trails throughout the property's woods. Located on the periphery of the campus core are the agricultural fields and school's pastures where the school has an established husbandry practice, working with the school's existing stock of pigs, goats, cattle, and horses. With the proper strategic planning, the flexibility of the three proposed programs and farm resources can be managed to allow for smooth transitions between land use functions on these spaces to benefit the school and students.

The farm facilities provide an excellent backdrop to the buildings and structures around the campus core's Central Mall. The Family Center, to the north of the mall, is currently under renovation to be utilized as the temporary classroom space and nursing facilities for the first year until the L. S. Brice School and Infirmary buildings can be updated south of the mall. These three structures, along with the Cafeteria and Chapel, will comprise the school's primary

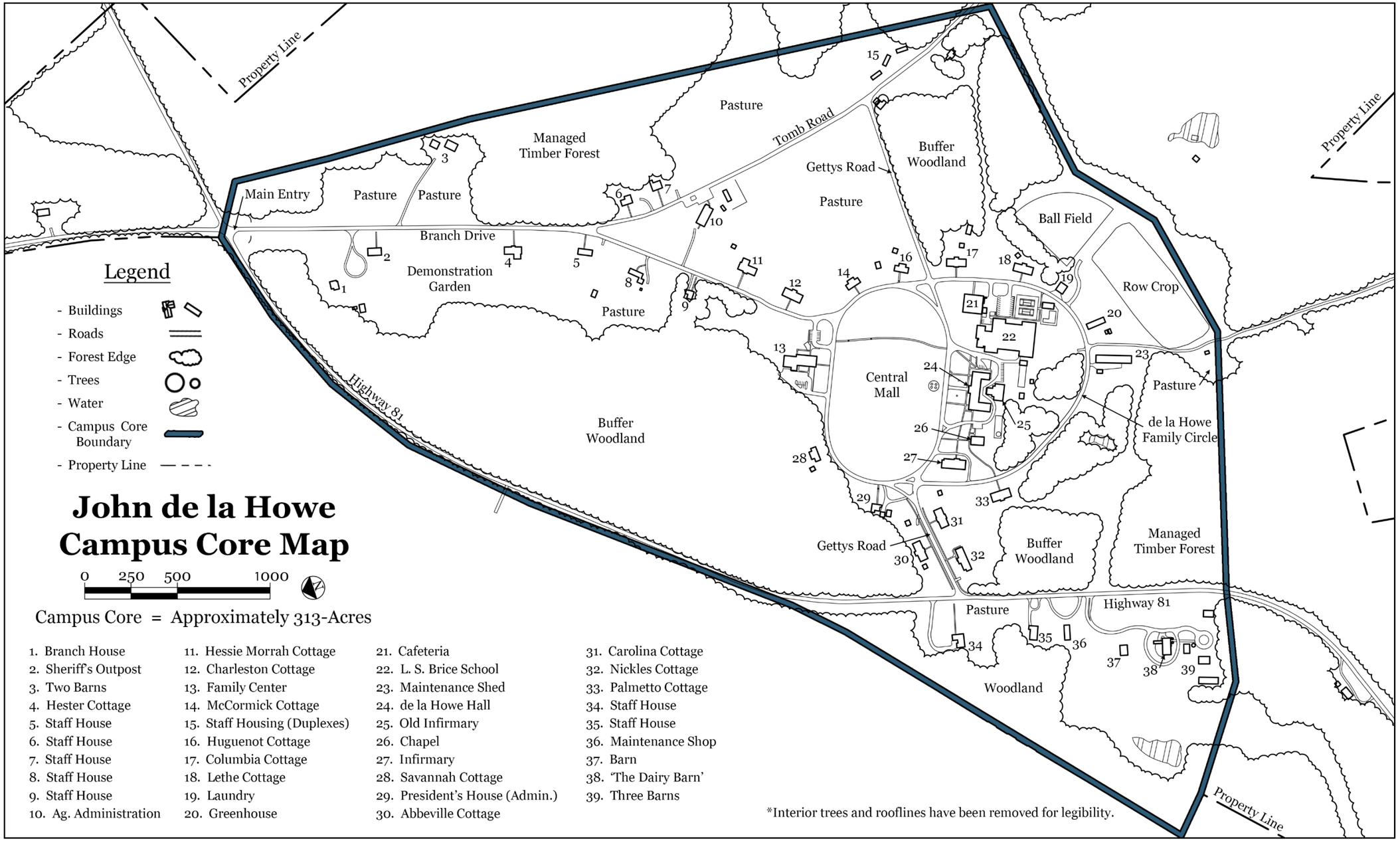


Figure 4.4 – JDLH Campus Core: This map illustrates the campus core area of approximately 313-acres and identifies the existing significant buildings on the campus. (Created by Brandon Platt)

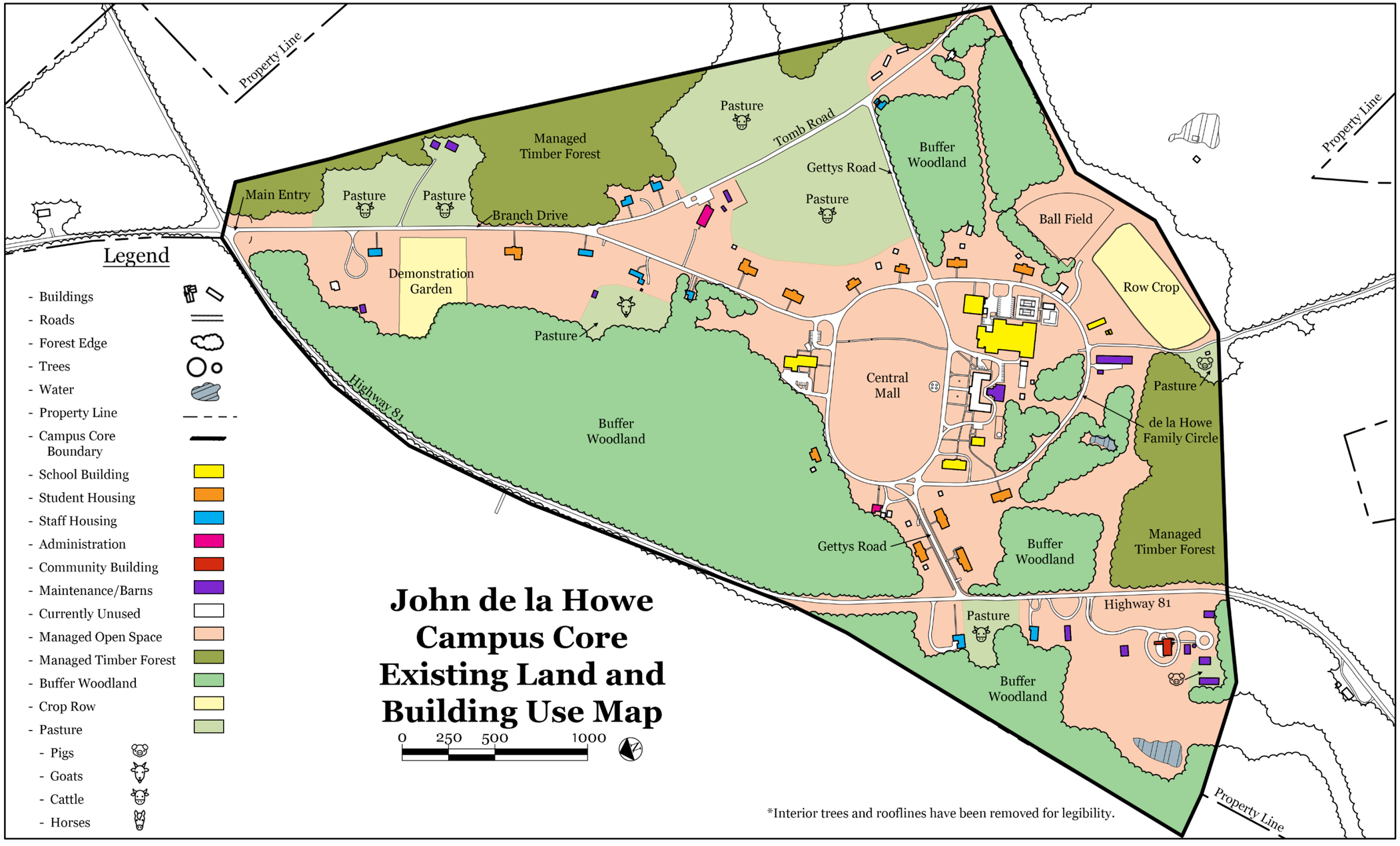


Figure 4.5 – JDLH Campus Core Existing Land and Building Use Map: This map depicts the existing land and building uses on the campus core. The Branch House and de la Howe Hall are currently unused due to poor condition. (Created by Brandon Platt)

buildings. Inside the L.S. Brice School building is the school's gymnasium with basketball court, weight room, library, and classrooms; however, they require revitalization before they can be used. The last building in this area is de la Howe Hall, which has suffered from neglect over the last few years and is currently sitting vacant. At the time of writing this thesis, the school expressed a desire to renovate the building, and though its future use has been much debated, its actual use is still undetermined. These structures, along with a few smaller structures, make up the campus core. In contrast, the remainder of the buildings and structures on campus are under renovation for student and staff housing, administration, community event areas, and farm facilities (Figure 4.6).

East and West of the Central Mall are the cottage residences added after the burning of the first de la Howe Hall (1937). The four cottages on the west are nicely clustered together, once serving as the boy's cottages. The six cottages to the east are in a straight alignment starting just south of the cafeteria on de la Howe Family Circle and concluding just north of the junction of Branch Drive and served once as the girl's cottages. The two outlying cottages from these groupings are Savannah and Hester Cottages, the former on the northern side of the mall, and the latter further north on Branch Drive. Further out still from the cottage clusters are the seven faculty houses, five on Branch Drive and two on Highway 81, which serve as buffers between the campus and student housing and access to the highway. Large clusters of trees form vegetated buffers at the outer edges of the campus parameter.

Within the campus core, JDLH has four specimen trees specifically added at some point in its past (Figure 4.7). Along Branch Drive from the main entrance to the fork at Tomb Road, is a tree allee of "October Glory" Red Maples planted in 1983-1984 by students. Others have been added along the northern portion of the Central Mall at some point. Just west of the maple allee

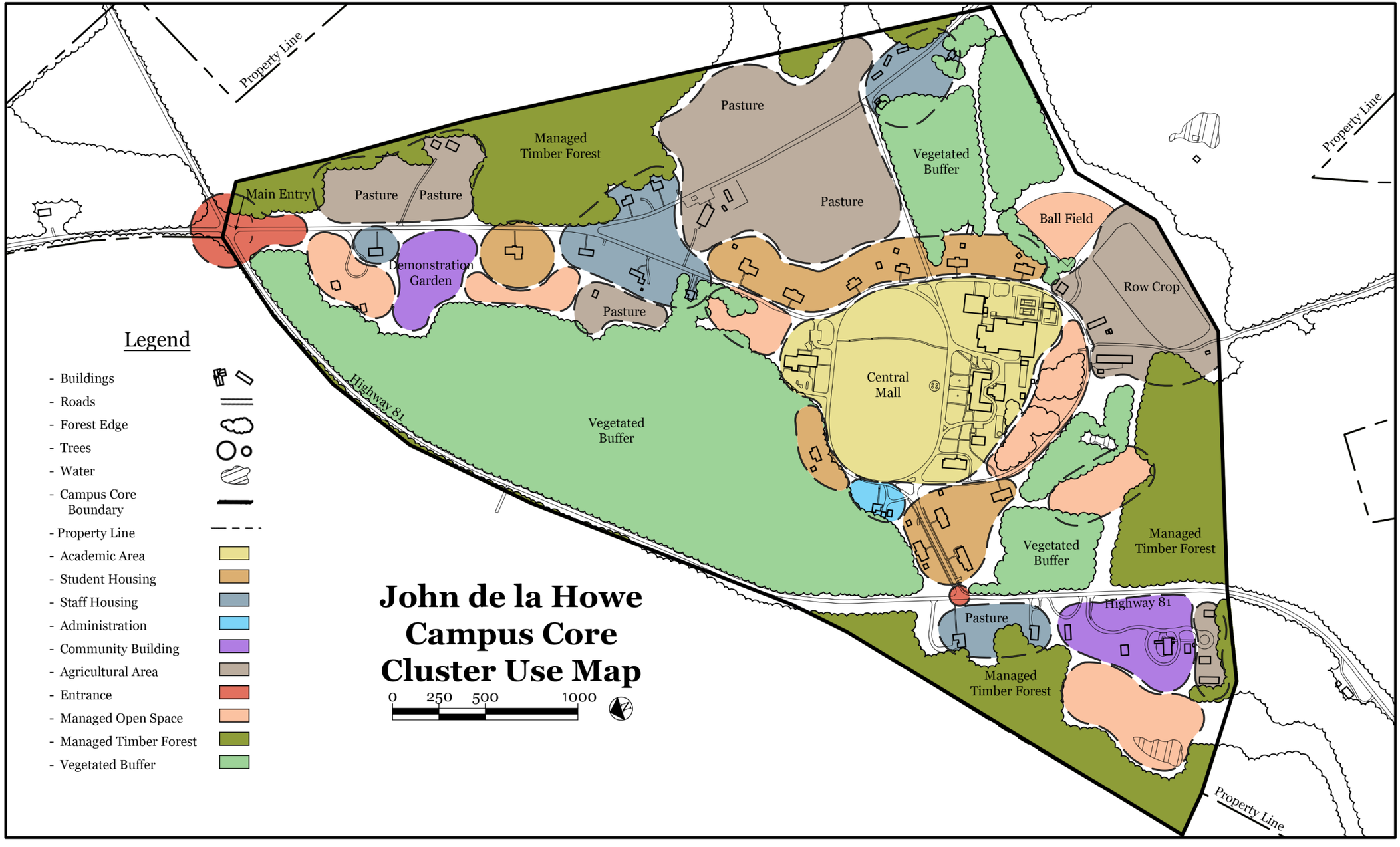


Figure 4.6 – JDLH Campus Core Cluster Use Map: This cluster map illustrates groupings or buildings and areas based upon their current use by the school. Notice the clustering of building types radiating outward from the Central Mall along the two campus entries routes, starting with student housing before transitioning to faculty housing. The community areas are separated from the school and student housing cluster currently, with one exception Branch Drive. (Created by Brandon Platt)

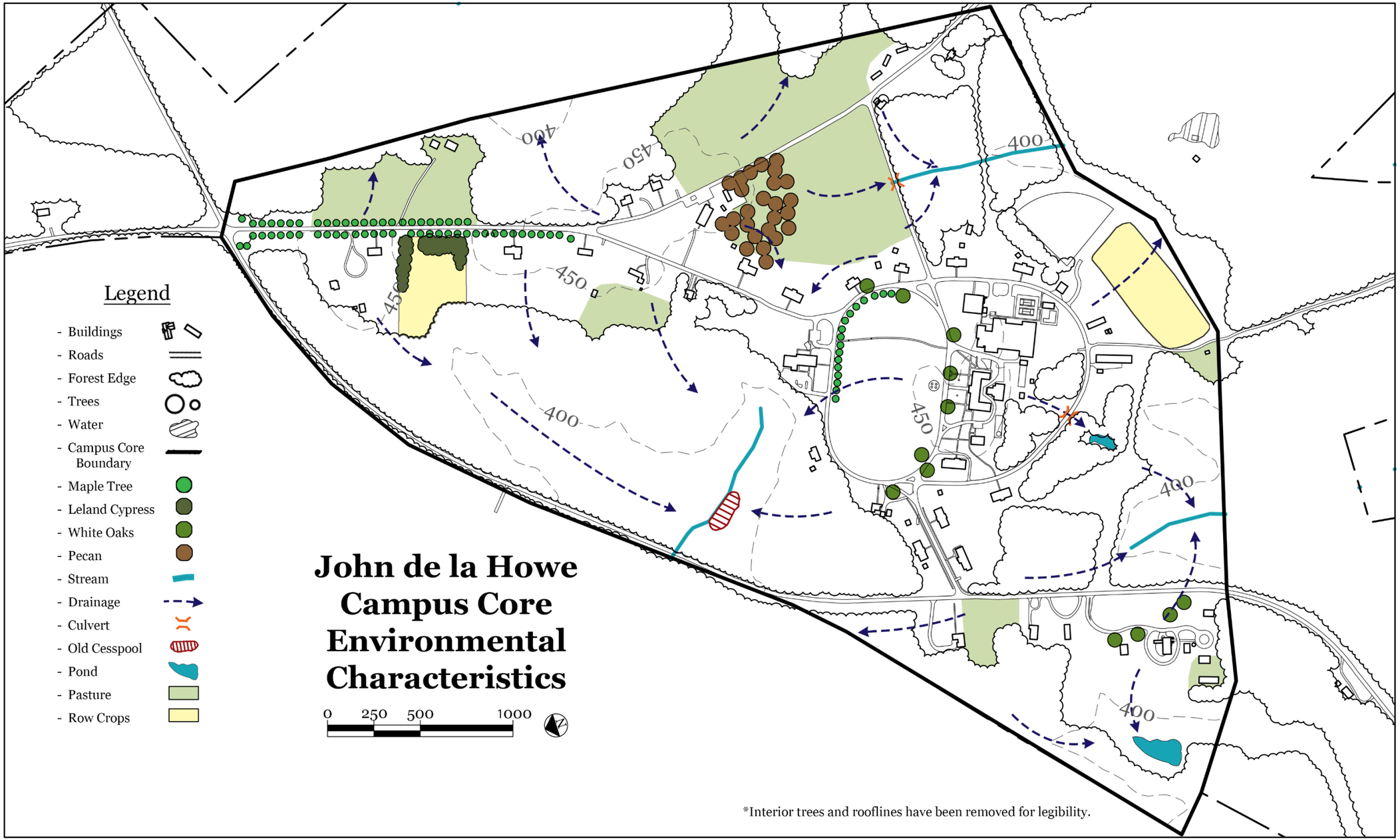


Figure 4.7 – JDLH Campus Core Environmental Characteristics Map: This map illustrates the various environmental concerns that JDLH should recognize as it plans it's future development, including specimen trees, stormwater drainage, topography, and other potential environmental hazards. (Created by Brandon Platt)

are two large stands of Leland Cypress trees once used as Christmas trees for the school, though the existing trees have matured well past a normal household tree size. On Tomb Road, just past the fork, is a small grove of Pecan trees that shade the pasture. The last specimen trees in the campus core are large White Oaks on the southern side of the Central Mall and in front of 'The Dairy Barn,' though some of these are showing signs of decay. The remaining portions of JDLH's campus core are open pastures and crop fields that are relatively flat or the wooded vegetated buffers within are gently rolling hills that allow for drainage to funnel into three channels/streams. Currently, there is little stormwater management on-site, appearing predominately as large culverts that funnel runoff to the channels/streams and eventually Lake Thurmond. Within the campus core, there are two small ponds and the remains of JDLH's old cesspool in the vegetated woodland buffer east of Highway 81.

Despite the size of JDLH's campus, many of the student-oriented buildings fall within a five-minute walking distance of each other and most other buildings, like faculty housing, are within ten-minutes (Figure 4.8). The school buildings are located within five-ten minutes of crop fields, pastures, and the managed forest to the benefit of the academic program, with additional facilities being further out. Unfortunately, there are few sidewalks for pedestrian traffic between the school building areas and the current cottages. There is a small length of sidewalk leading towards the road when exiting the majority of the cottages, but even these do not extend to the road entirely. To date, the school has had little vehicular traffic allowing students to utilize the roads for pedestrian circulation. One length of sidewalk that stands out is the stretch of sidewalk running across the central mall. This indicates a past necessity for pedestrian traffic across the Central Mall between the Family Center and de la Howe Hall. Ultimately, pedestrians have little directional orientation and no sense of hierarchy to the layout of existing pedestrian circulation.

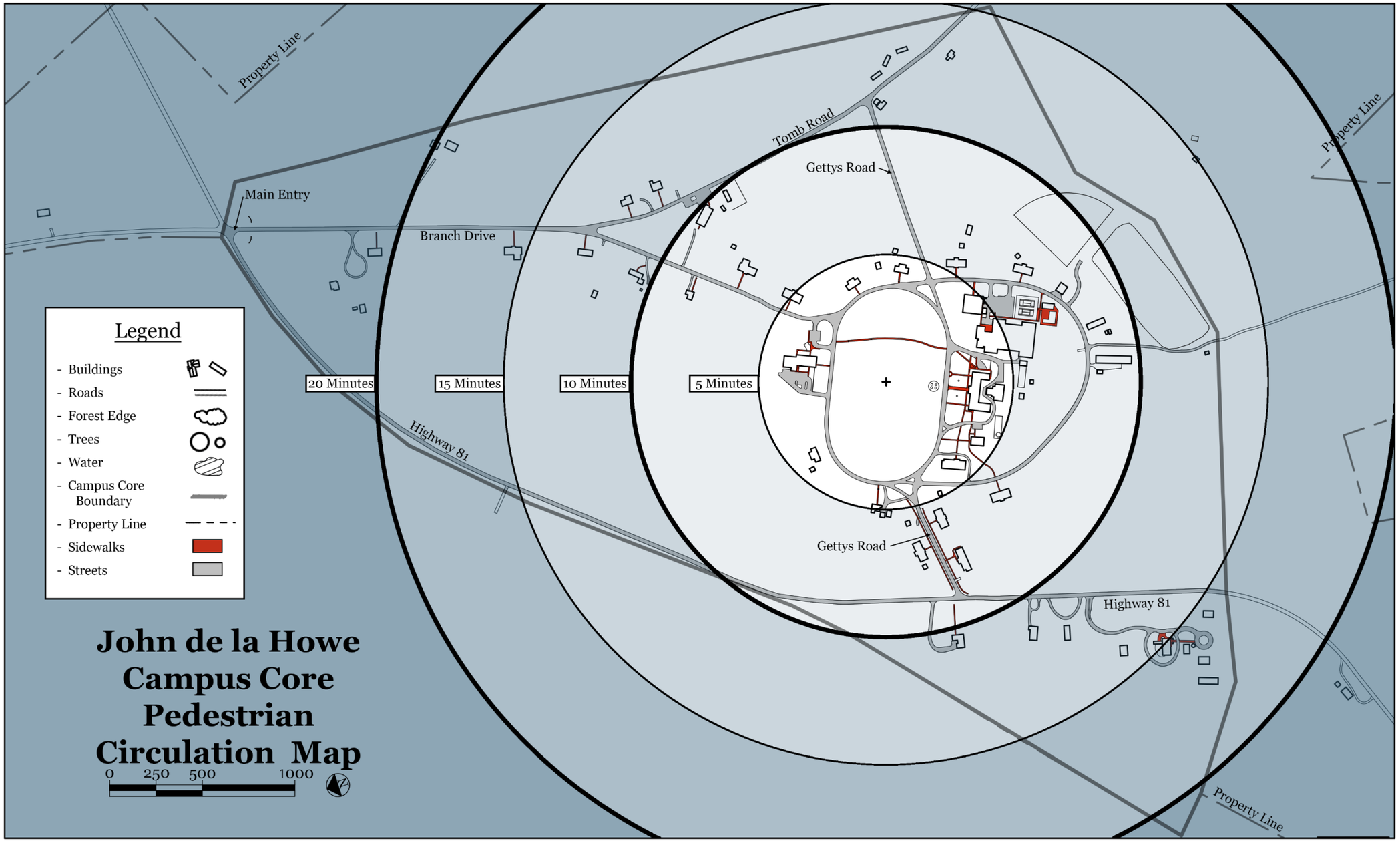
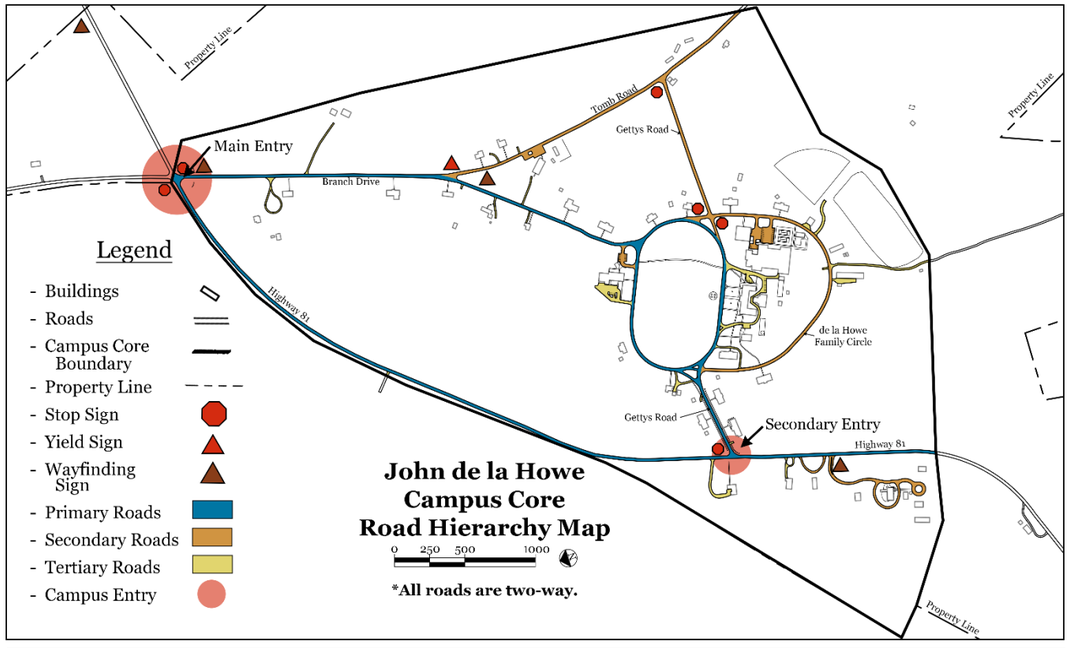
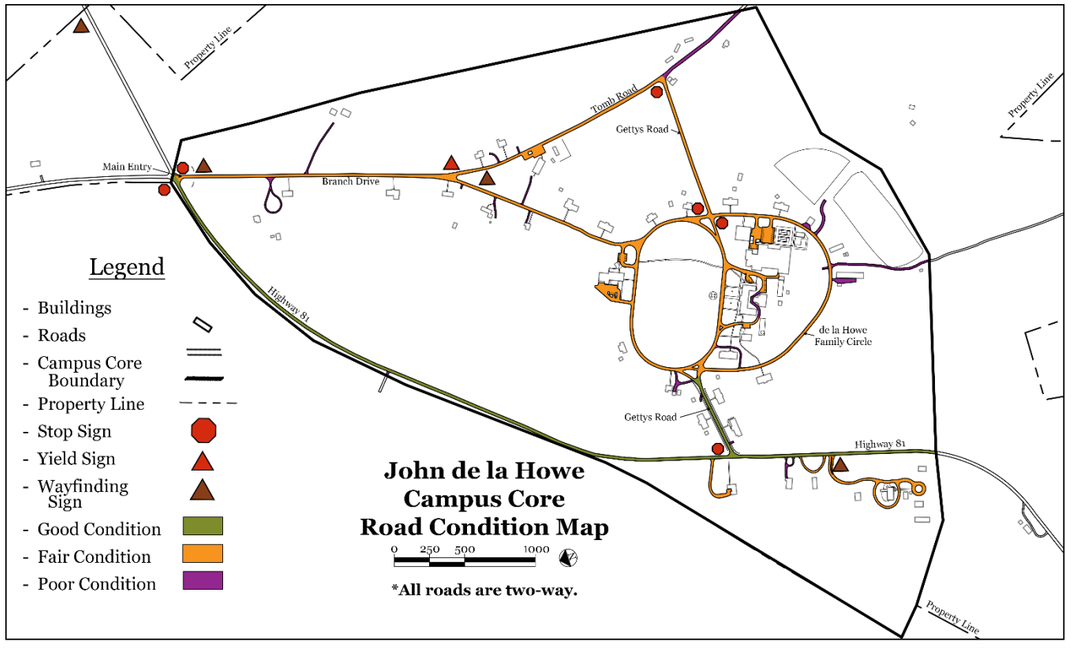


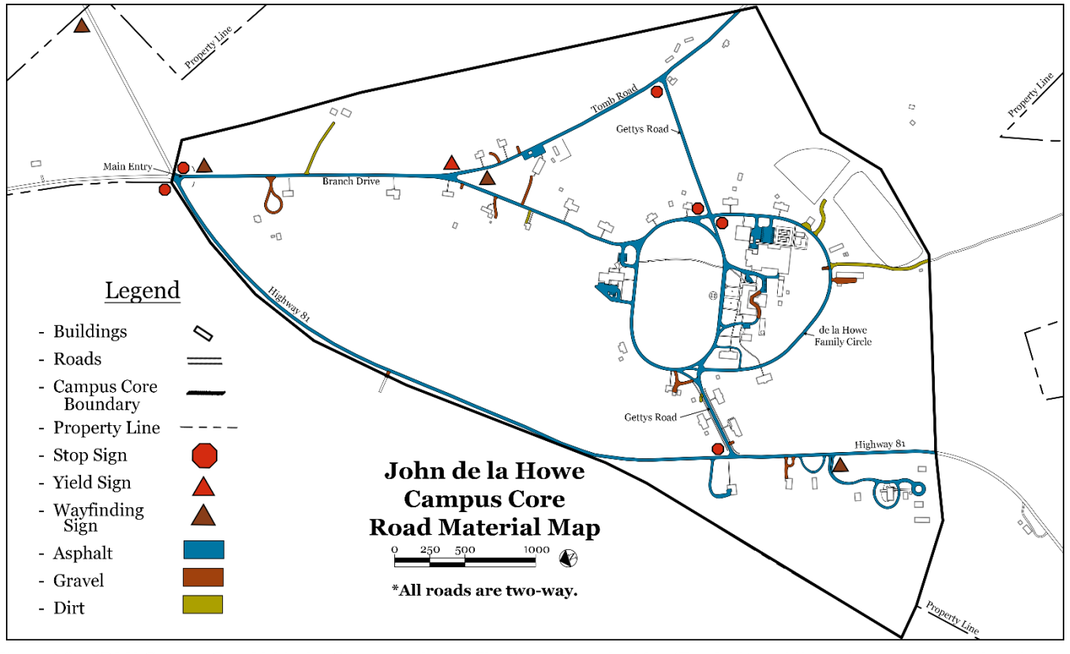
Figure 4.8 – JDLH Campus Core Pedestrian Circulation Map: This map, based on the recommendations of the campus design research, illustrates the walking radius from the center of the Central Mall in five-minute intervals. Existing sidewalks are focused around the school buildings on the south side of the Central Mall, however, there are few beyond this point that can be used by students to safely travel to the school. The farming facilities, on the exterior of the campus core, are within a ten-minute walk of the school. (Created by Brandon Platt)

Vehicular circulation will also need improvement as the school progresses (Figure 4.9). All-access to the property is done through vehicular traffic by way of South Carolina State Highway 81. The main entrance is at the highway's intersection with Branch Drive while a second entry is on the northwestern side of campus at the Gettys Road intersection. The secondary entry at Gettys Road is closer to the campus core and has little security or signage. While there is signage upon entering the property from the north, there is none when entering from the west. At the campus' main entry, the JDLH brick sign was added in the 1960s. The school is currently adding a guard-booth for security and visitor check-in at the main entry. There are few to no directional traffic signs from the main entrance, including stop signs, speed limits, or pedestrian crossings. The roads are predominately asphalt in fair condition; however, few houses have little more than a dirt driveway, if anything. Connection to the Wilderness Program and forested areas are accessed through poor (pothole-filled) asphalt backroads or dirt roads, but these are currently appropriate for the school's needs and uses. There is limited defined parking on campus (approximately 109 spaces), with many visitors and staff currently parking on the lawns when needed. There are few curbs, gutters, and stormwater management methods on site. With roadside parking so prevalent, many of the road's edges are degraded. The school has plans to remove the pool and tennis courts to add a parking lot of approximately 250 – 300 spaces.

As the campus expanded outward from the Central Mall, it becomes clear that the development was not as 'haphazard' as it first may appear. The patterning of development started first infilling around the Central Mall and then moved up Branch Drive towards the main entry (Figure 4.10). Examining an updated Building Age Map shows that an infill phase of cottages and houses occurred in the 1960s, going north along Branch Drive. After the 1970s,







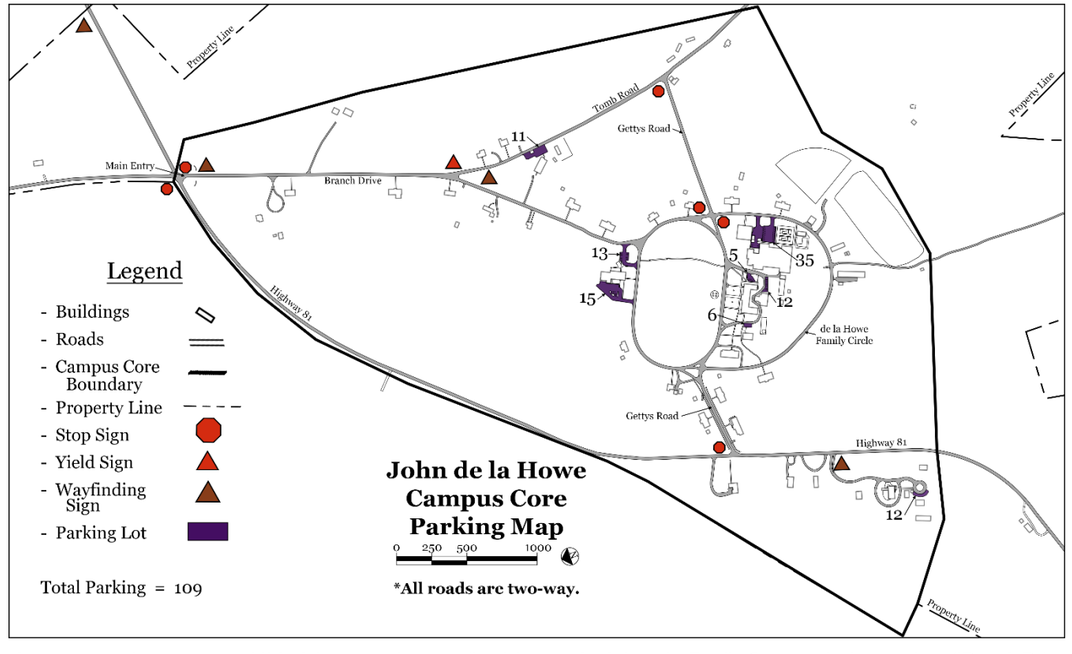


Figure 4.9 – JDLH Campus Core Vehicular Circulation Maps: The Road Hierarchy Map (Top Left) establishes the current hierarchy of the road network and entrances on the campus, established due to requirements for visitors to check-in at the Family Center at the intersection of Branch Drive and the Central Mall. The Road Conditions Map (Top Right) illustrates that a majority of JDLH's roads are in fair condition with the roads transitioning to poor condition as they move to the south of the property. Most of JDLH's roads are asphalt, as can be seen on the Road Material Map (Bottom Left), with a few driveways and exterior roads transitioning to gravel or dirt. The Parking Map (Bottom Right) illustrates that parking on campus is currently limited, totaling 109 spaces, with a majority of it clustered around the major school buildings. (Created by Brandon Platt)

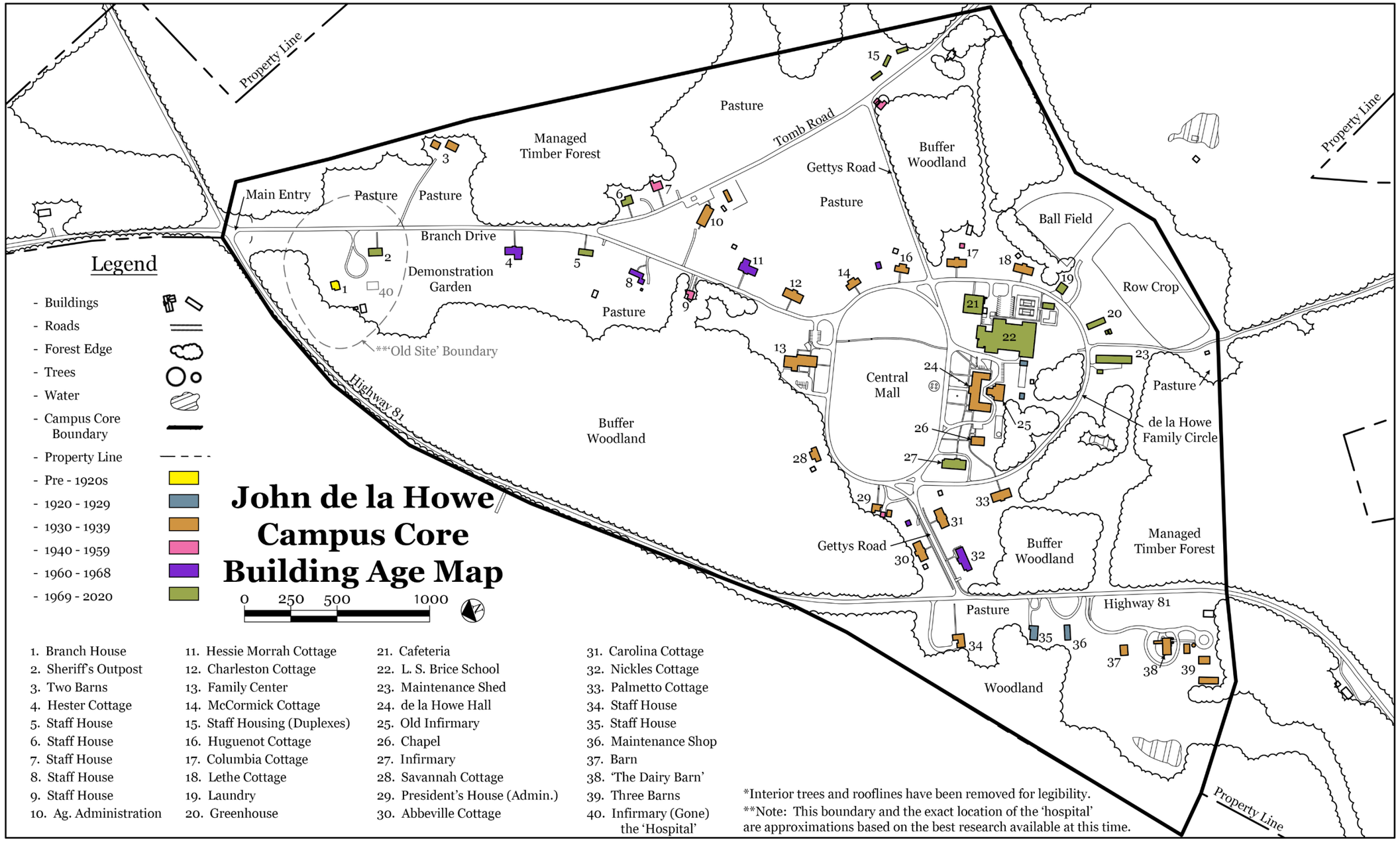


Figure 4.10– JDLH Campus Core Building Age Map: A map that dates the construction of the buildings on the campus. Notice the cluster of buildings around the Central Mall during the 1930s and the large cluster of additions that occurred after 1969 on the southeast corner of de la Howe Family Circle. (Created by Brandon Platt)

there was also a considerable amount of additions around the southern end of the Central Mall. These changes centered around replacing the old gymnasium with the L.S. Brice School building, the Cafeteria, a pool, the Infirmary, and a few minor buildings. When viewing the existing building locations in combination with the massing of the tree canopy, there is a higher massing of structures and trees to the south side of the campus core than to the north (Figure 4.11). This density indicates that in the recent past, there was higher pedestrian traffic use in the southern portion of the campus core than the northern portion, which may be confirmed by the higher number of sidewalks. Strikingly visible areas of open space are the Central Mall and the areas around the campus edges. Many of these open spaces are pastures, except for the ball field and crop field. The fact that the Central Mall is a preexisting open space, which is also relatively flat, speaks to the importance it held to the JDLH community. Other smaller open spaces can be found between the cottages. Of particular interest are the open spaces to the southwest of de la Howe Family Circle and another east of the girl's cottages along Gettys Road (currently pasture). Both locations are close to the campus core, along connecting roads to the Central Mall, and have natural buffers from the preexisting campus structures.

After the fire in 1937, the campus added more brick buildings (Figure 4.12). These buildings have similar coloring and style, with most following this pattern up to the 1970s. After 1970, the newer brick additions standout, following a different style and having a darker coloring. Of the non-brick buildings on campus, most are of wood or vinyl, except the three remaining granite structures, 'The Dairy Barn,' the Family Center, and a small storehouse/maintenance building. These building styles and material precedents are one of many patterns that can be found on the campus. Other precedents are already established, but that cannot be seen without proper analysis.

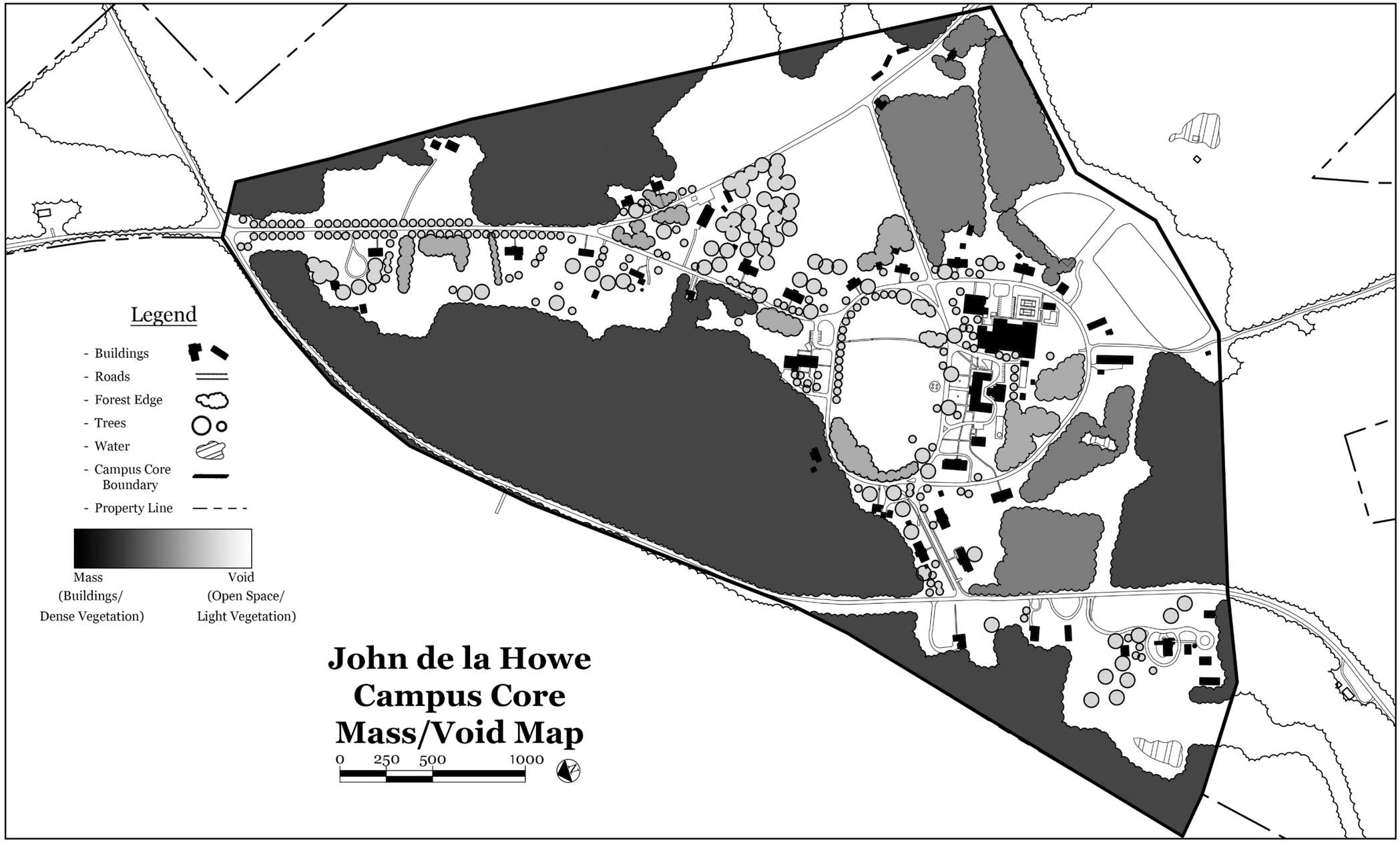


Figure 4.11 – JDLH Campus Core Mass/Void Map: A map that combines the building massing with the levels of vegetation in areas to reveal the current open space on campus that could either be considered for additional buildings or to maintain as open space for student activities. Notice the variety of spaces in scale and location from the smaller locations near the cottages to the larger locations on the exterior. (Created by Brandon Platt)

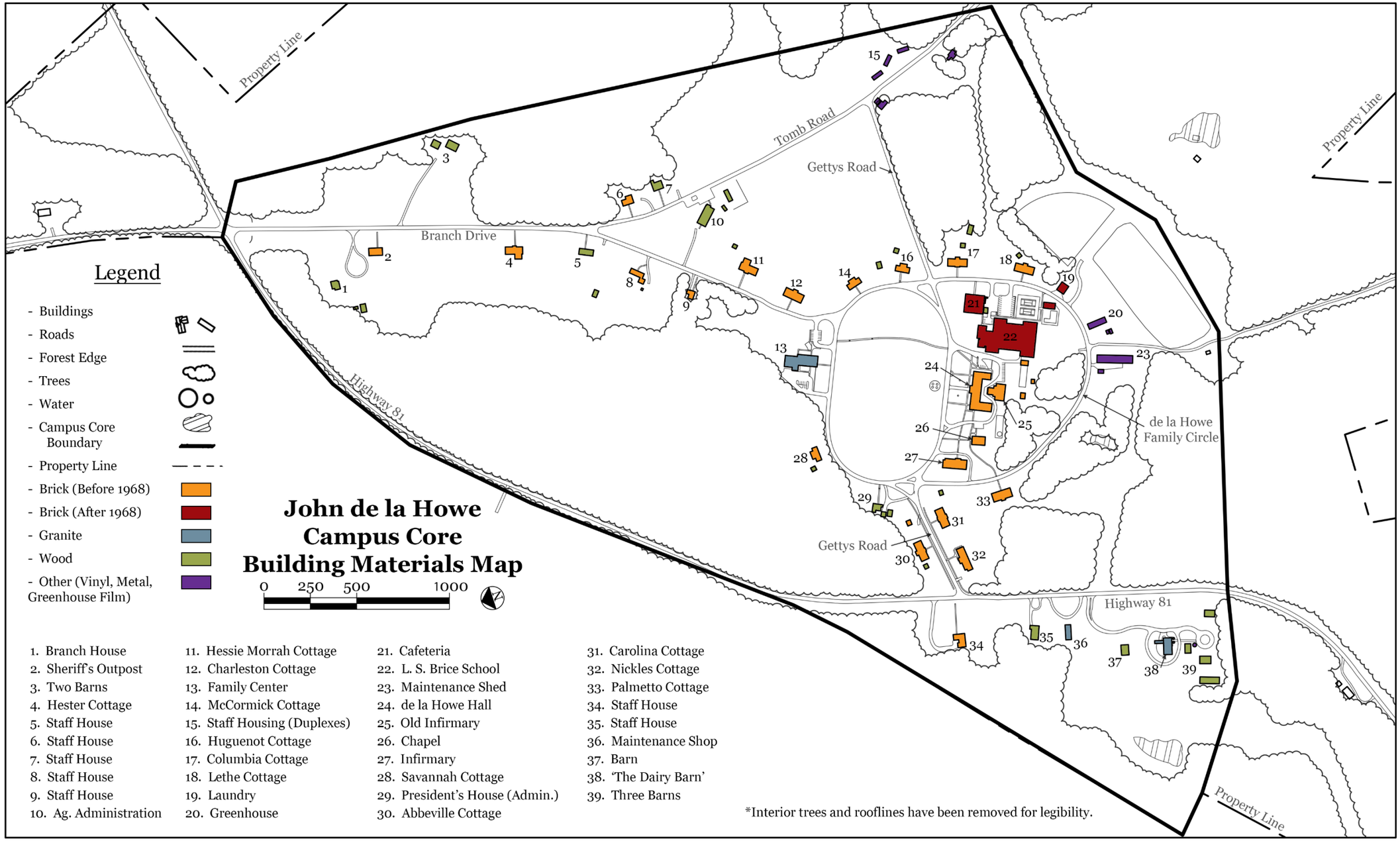


Figure 4.12 – JDLH Campus Core Building Materials Map: A map that illustrates the construction material used across the campus. When viewed with the Building Age Map, a pattern becomes evident in the materials used throughout decades of construction at JDLH. A majority of the 1930s buildings and the post-1969 buildings are of similar styles and materials. (Created by Brandon Platt)

Analysis: Campus Core

Though previously referred to as 'haphazardly placed,' there are specific patterns evident in each building's setback, spacing, view, and height that can only be seen with the proper analysis. Looking at the cottages' placement around the campus, most of the cottages were setback between 48' – 64' from their access roads, providing a nice size front yard (Figure 4.13). The exceptions to this pattern are Hessie Morrah and Hester Cottages along Branch Drive, both of which were added in the 1960s. These two, however, do follow the pattern along Branch Drive, with a majority of these building's setback between 78' – 98'. Another setback pattern is the campus facilities structures along de la Howe Family Circle that are between 21' – 23'. Other structures at significant intersections, like the Family Center and President's House, are setback further from the junctions to not disturb the view of the road and buildings. One pattern that is not as visible when on-site is the concave shape to the buildings along the southern part of the Central Mall. The corner buildings, the Cafeteria and Infirmary, are both roughly 72' off of de la Howe Family Circle and protrude northward from other buildings on the Central Mall's southern road. Moving inwards towards each other, the L.S. Brice School building and Chapel are a setback, before the de la Howe Hall steps forward again, though not as far as the original line. These offsets help to establish a small courtyard in this area as well as show importance to de la Howe Hall. Finally, there are always exceptions to patterns, and JDLH's include: a pool facilities building, which JDLH is removing; the duplexes and one building on Tomb Road, all built inside the defined setback patterns; and the Branch House and two barns by the main entrance, which were built before the current campus patterning was developed and may have reasoning based upon the 'Old Sites' layout.

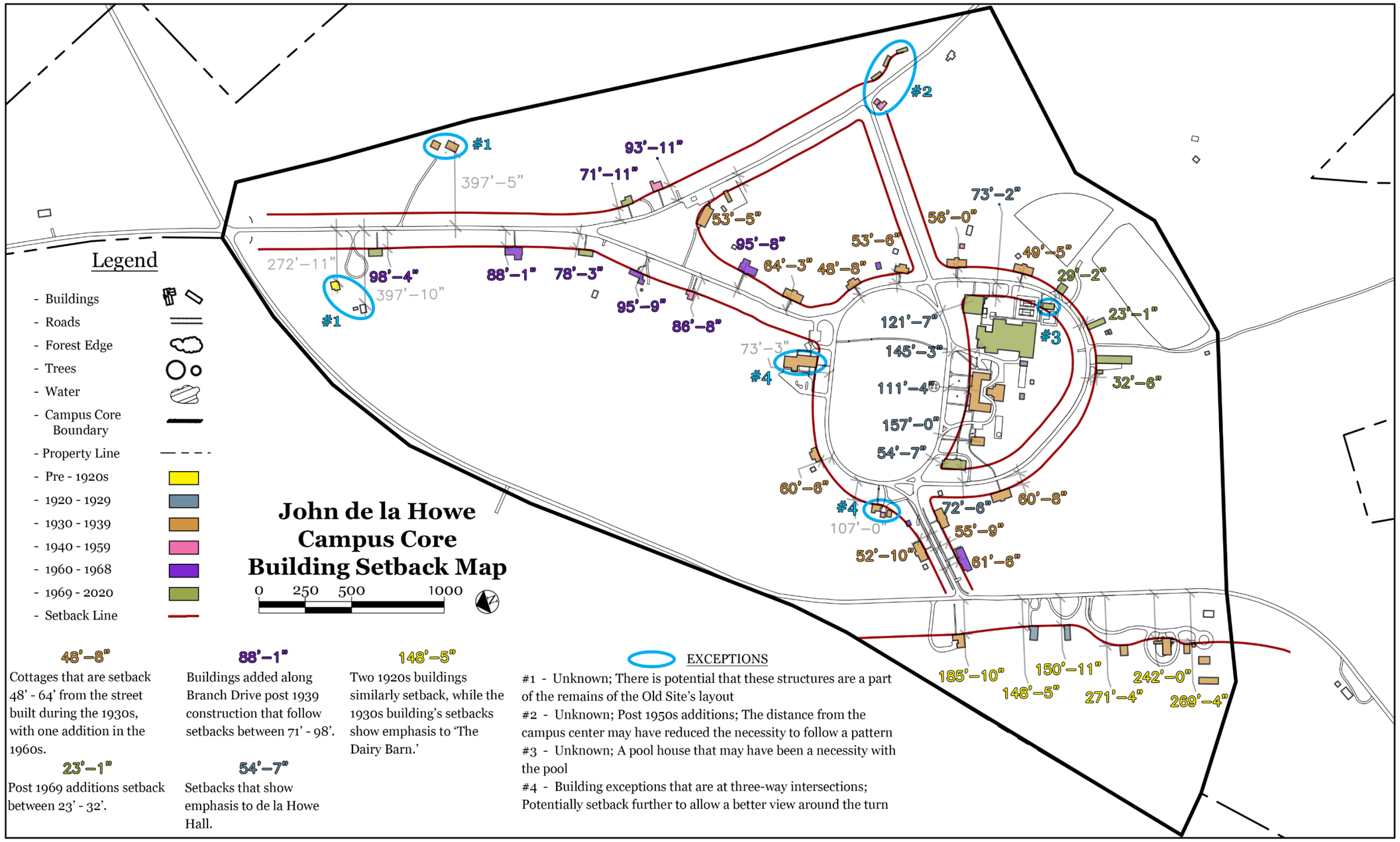


Figure 4.13 – JDLH Campus Core Building Setback Map: Utilizing the Building Age Map, patterns can be found in the clustering of buildings from similar time periods. While there are exceptions to these patterns, a majority of the buildings on campus regardless of their construction time follow the patterns in the locations they were added. (Created by Brandon Platt)

As for the distances between buildings, while slightly more challenging to see a patterning, the buildings built during similar time frames seem to follow similar spacings patterns (Figure 4.14). For example, of the original five girl's cottages along the mall, the interior three were spaced relatively closer together at 190' – 212' while the outer two were built between 254' – 274'. Similar groupings can be found with the original boy's cottages and the faculty housing infill along Branch Drive. The 1970s additions spacing shrinks down to 42' – 50'. Other buildings on campus are placed individually, with potential space for future infill if needed.

In addition to the building's setbacks from the road and their spacing, the building's viewsheds are also crucial in the layout of the campus. It is easy to establish that the majority of buildings face their road access; however, it is interesting to see what they are viewing beyond that road (Figure 4.15). Buildings built around the Central Mall have some of the longest views of the campus core (open space), whether they are school buildings or cottages. The minor exceptions are when these structures are not directly facing the Center Mall, like the Cafeteria and Infirmary, or when the viewshed is obstructed by large groupings of trees, like Savannah Cottage. Sadly, the remainder of the building's views around de la Howe Family Circle, while not terrible, are not as spacious, facing the side or rear of the school. Other places on campus fare better, like the faculty housing along Branch Drive, which at least get a medium view of nature. Similar views exist for most of the buildings on campus, with an interesting pattern. Nowhere, except for the south side of de la Howe Family Circle, are there viewsheds that look directly at another building. A majority of the campus buildings have been oriented so that the patrons could see nature in their immediate viewshed before other buildings. The west side of Gettys

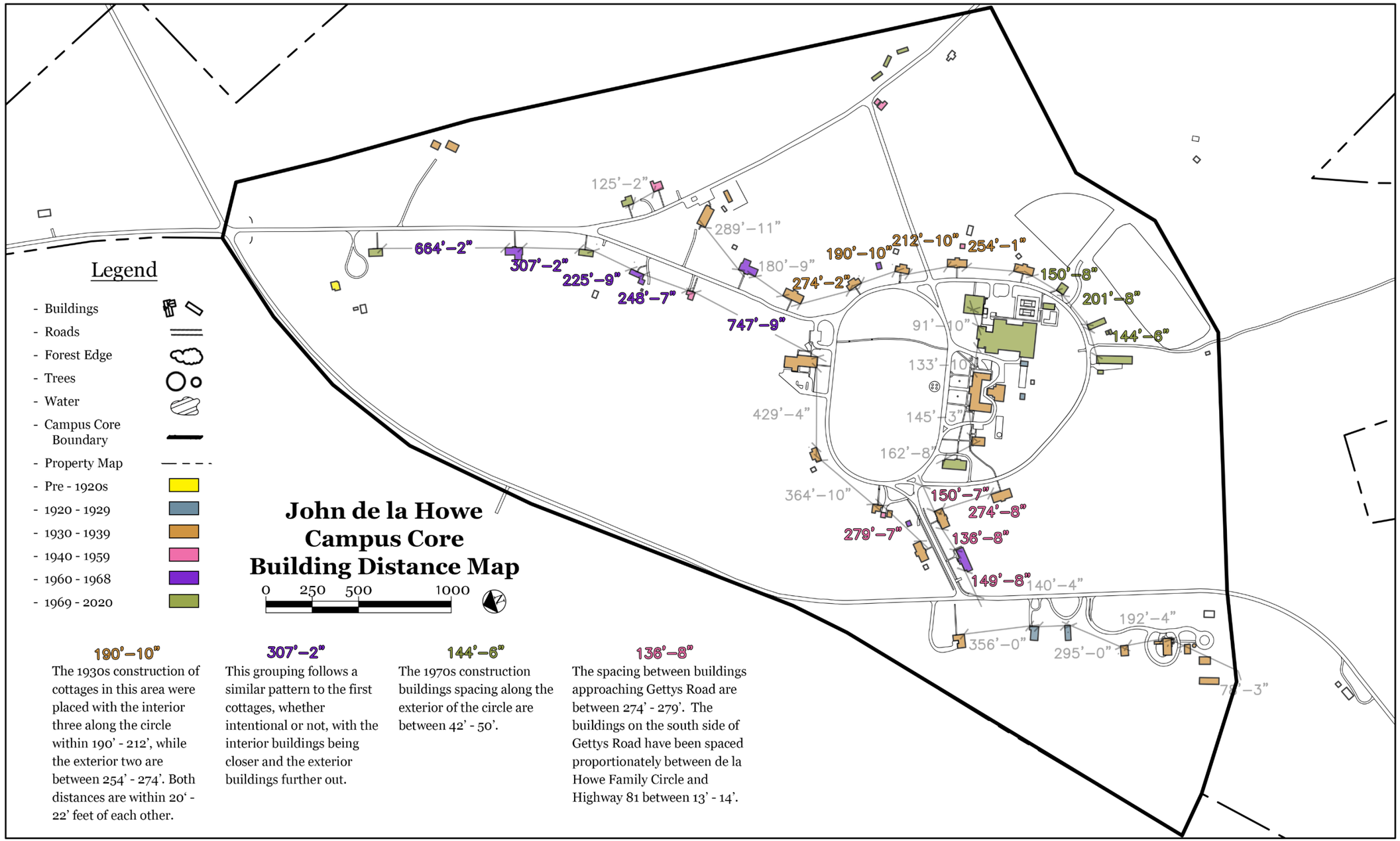


Figure 4.14 – JDLH Campus Core Building Distance Map: Again, utilizing the Building Age amp, patterns are revealed in the spacing between buildings. Patterns of spacing can be seen around both clusters of cottages, along Branch Drive, and with the newest buildings on the south side of the campus. (Created by Brandon Platt)

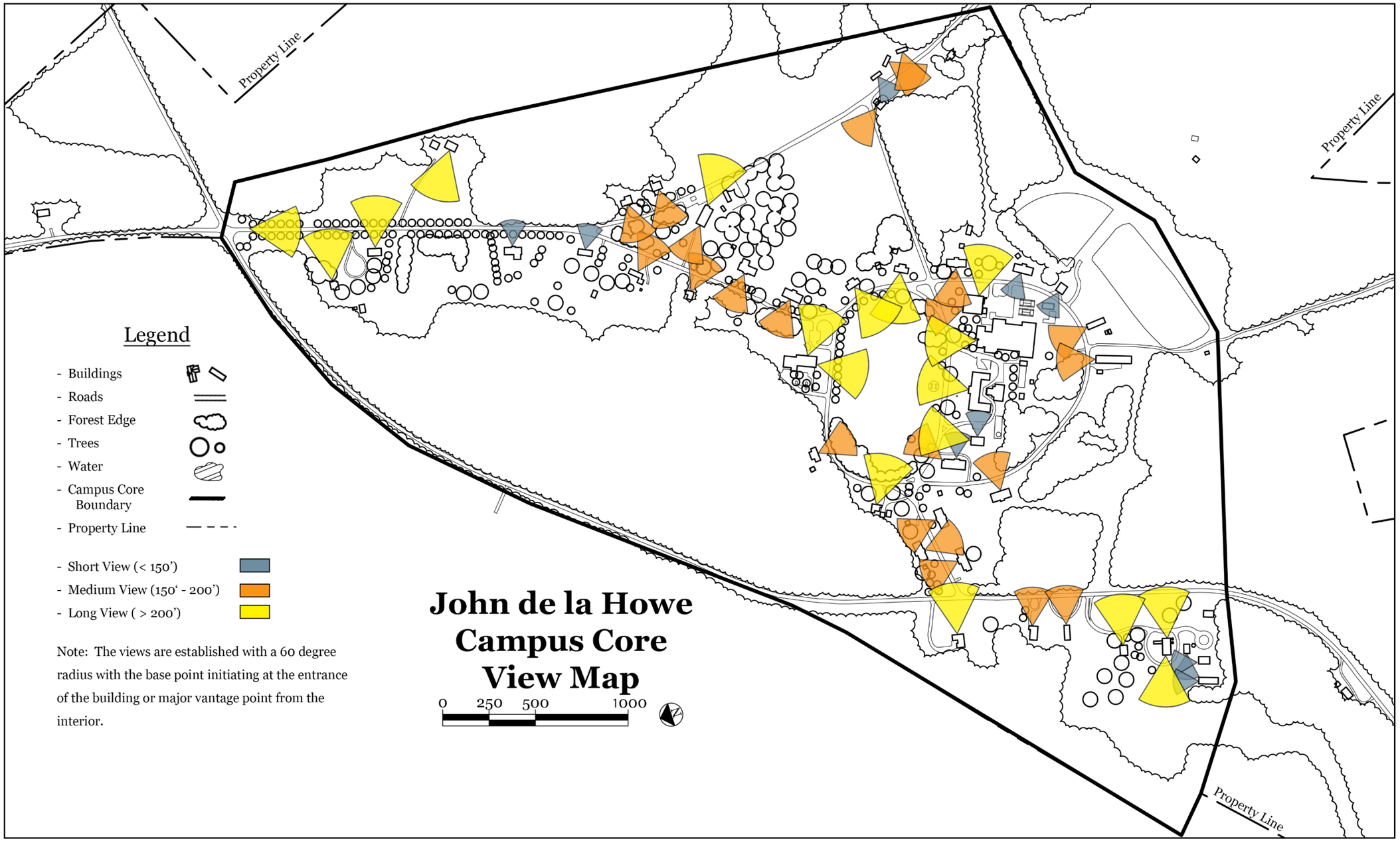


Figure 4.15 – JDLH Campus Core View Map: This map illustrates the length of significant views on JDLH's campus, including the main entry of each building, views from multi-storied buildings and the main entrance view from Highway 81. Notice that few buildings directly face another building, and that, when possible, buildings have been offset from each other across the street in order to maintain a natural view. (Created by Brandon Platt)

Road is a perfect example, as building spacing has been offset enough to provide a natural view between the cottages (Figure 4.16).

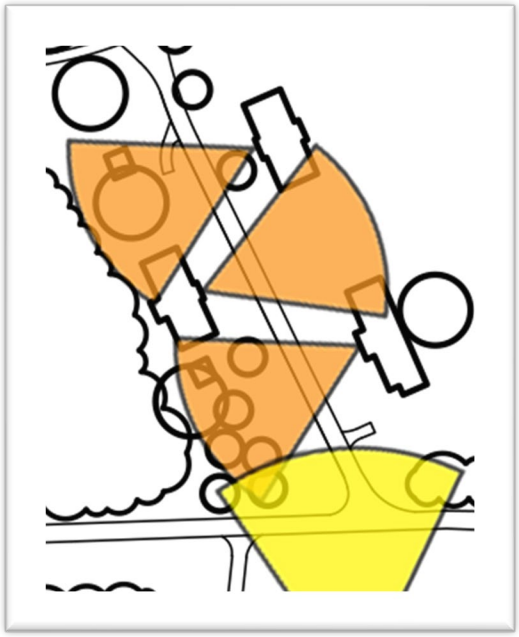


Figure 4.16 – Gettys Road Example: Buildings were added in an offset pattern to avoid blocking the views. Future buildings should emulate this precedent. (Created by Brandon Platt)

The last of these four analysis maps on building design and orientation is building height (Figure 4.17). Most of the buildings on campus are one-story; however, those that are not, reveal some interesting points. The Branch House was established as the main building, housing the president on the 'Old Site,' and it is understandable why it is two-story. Similarly, the current President's House was established for the leading figure on campus. 'The Dairy Barn' and the two barns on Branch Drive were utilized for cattle and, therefore, were built, most likely, with a second floor for hay storage. It is interesting to examine the five remaining buildings that are over one-story, all of which are all on the Central Mall. It has already been established that de la Howe Hall stands forward from the other building setbacks and standing as a two-story structure, it literally and figuratively is elevated as important to the campus. It is evident that it was sited at the crest of the hill, purposely raising it above the other structures.[178] Following the contours of the slope, the next two-story structures around the mall are Huguenot and McCormick Cottages. The reasons for Huguenot and McCormick's height is unclear; however, their placement at the

[178] This topography was provided by JDLH who had their campus core mapped by a professional firm. These were the only contours provide and due to the limited digital data available on the site it was not practical to retrieve additional site contours in AutoCAD.

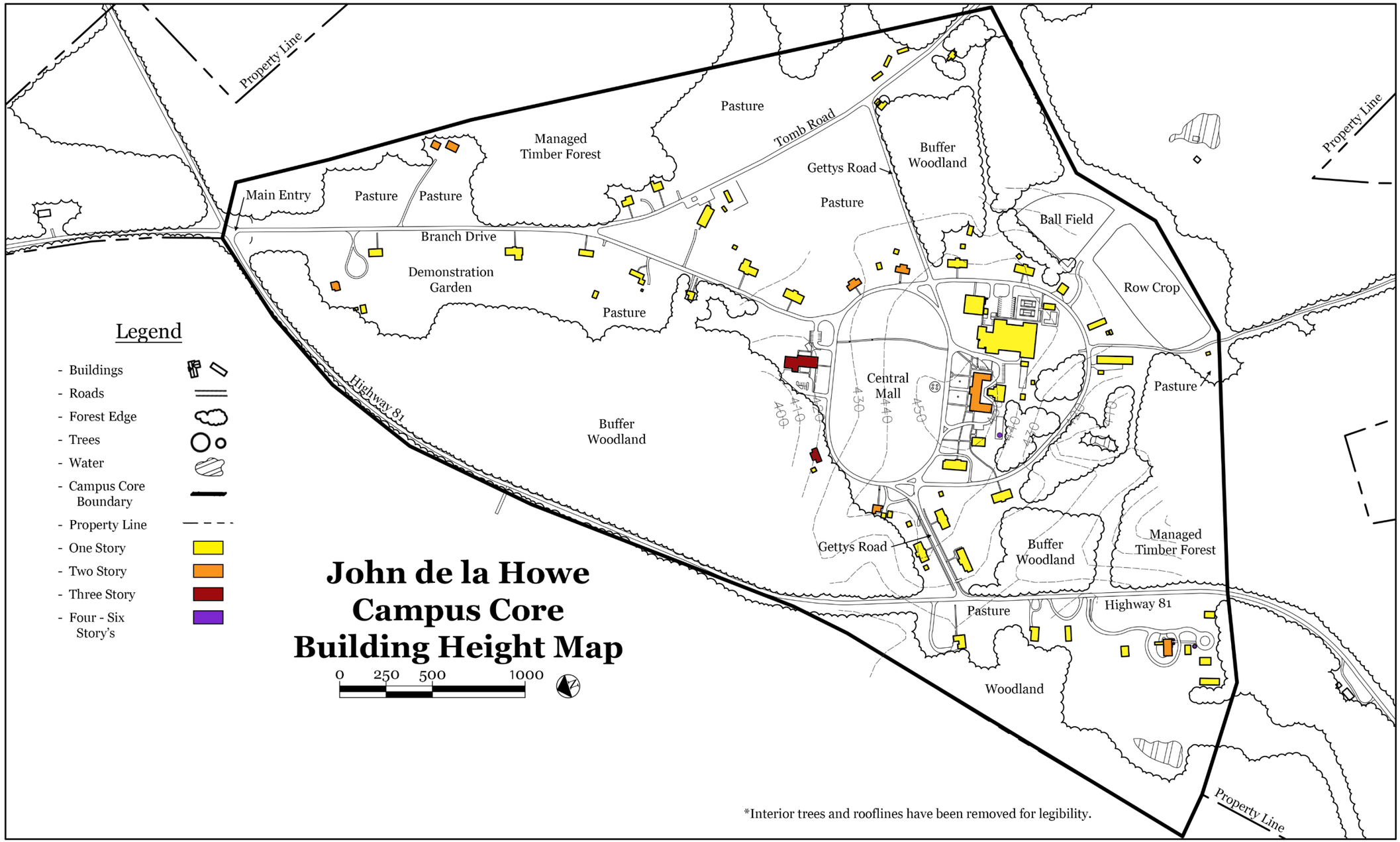
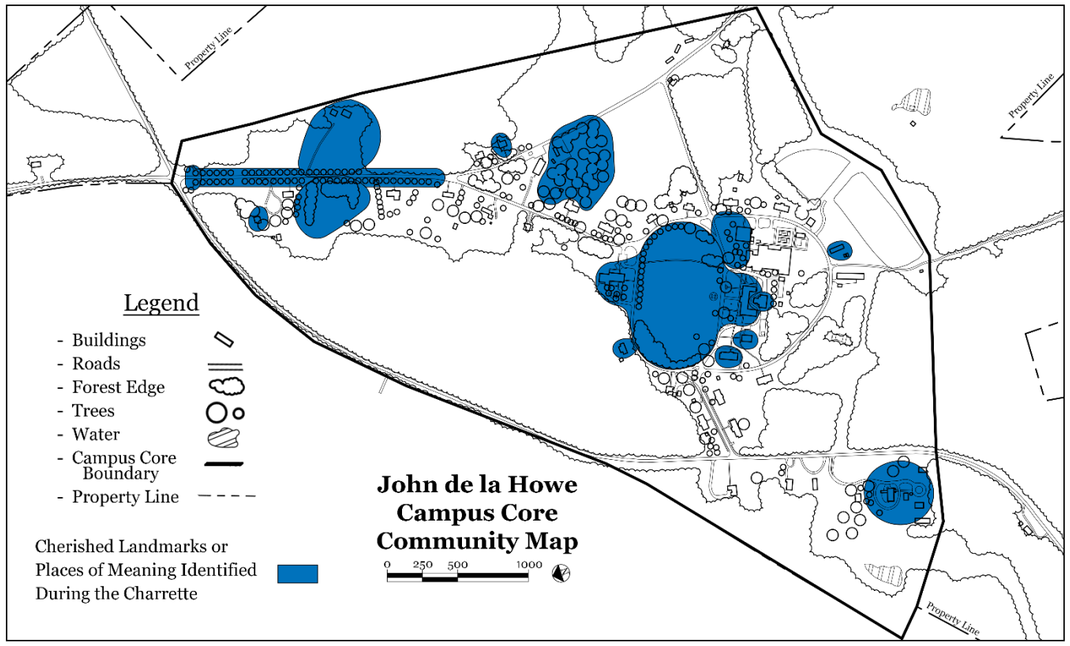


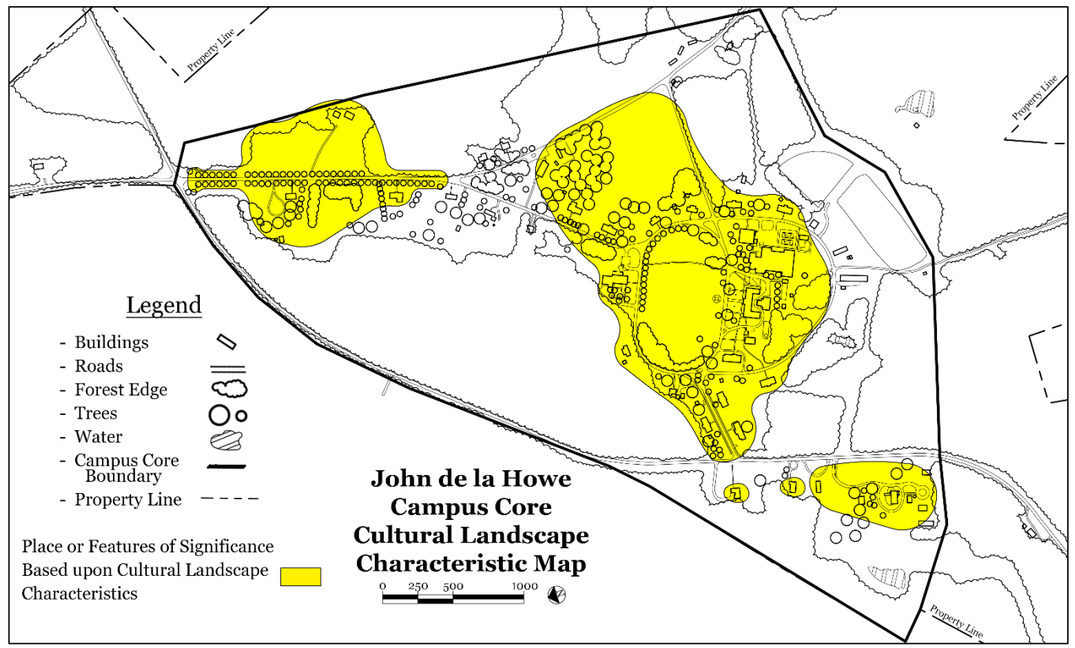
Figure 4.17 – JDLH Campus Core Building Height Map: This map illustrates the height of buildings on JDLH's campus core. A majority are single-story structures, with a few exceptions that take advantage of the natural contours on the campus to show significance to de la Howe Hall. (Created by Brandon Platt)

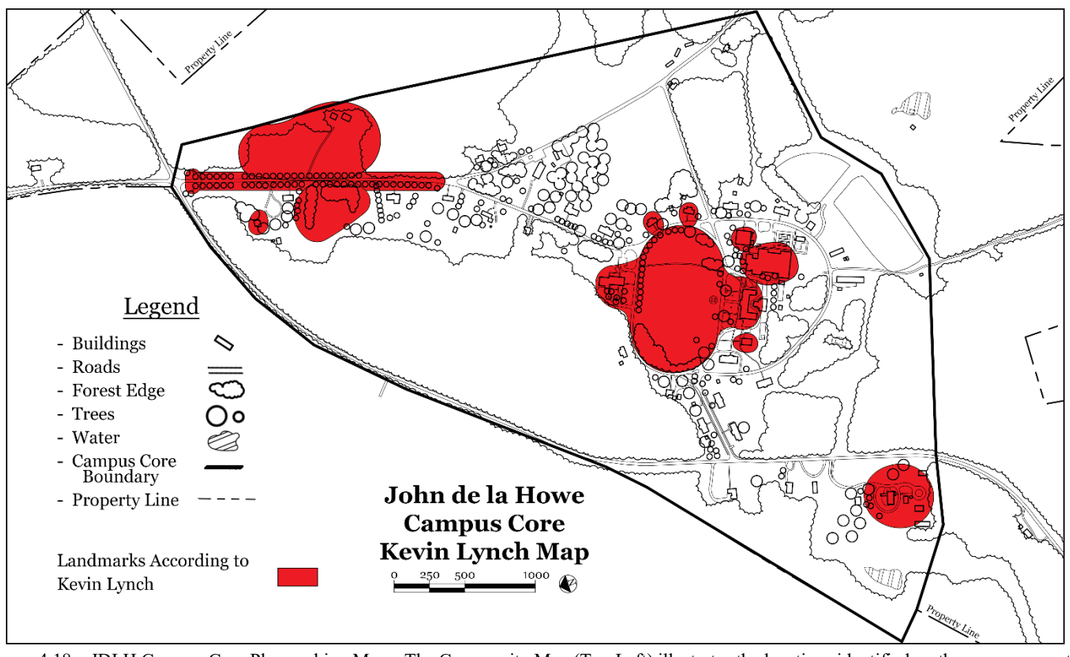
middle point of the slope allows these buildings not to impose on the actual landscape. The last two buildings are the only three-story structures on campus, and again they were constructed utilizing the slope of the property to remain below the hilltop. At first glance, the Family Center appears to be only two-story; however, there is a lower level that takes advantage of the considerable slope change to conceal the building's height on the second level. Savannah Cottage is similar, sitting only slightly higher on the land. Because of their artful placement in the topography, their potential for becoming dominant structures in height is subdued.

Each of these placement and design decisions has helped to create a precedent for establishing the most prominent, or valued, features on campus. Each has played a part in the creation of campus landmarks, or placemarkers (Figure 4.18). These Placemaking Maps are an amalgamation of locations community members from the charrette identified, places or features defined as culturally significant, and places that are defined as landmarks, according to renowned planner Kevin Lynch. The culturally significant places and features are both tangible and intangible aspects of the site that give the landscape its historic character and cultural importance with this map specifically focusing on the characteristics of building and structures, vistas and views, topography, circulation, cluster arrangement, vegetation, and the overall spatial organization. Utilizing these characteristics most of the 'Old Site,' a large area around the Central Mall, and 'The Dairy Barn' can be seen as culturally significant. In comparison, Lynch's *The Image of the City* defines landmarks as places with features that single it out or have some unique or memorable aspect. The structure could contrast with the background, have a spatial prominence, be constructed of a different style or material, or even have an unpleasant or irritating presence.[179] By applying this definition to the campus core and merging it with the

[179] Kevin Lynch, *The Image of the City* (Cambridge, Massachusetts: The MIT Press, 1992), 79-82.







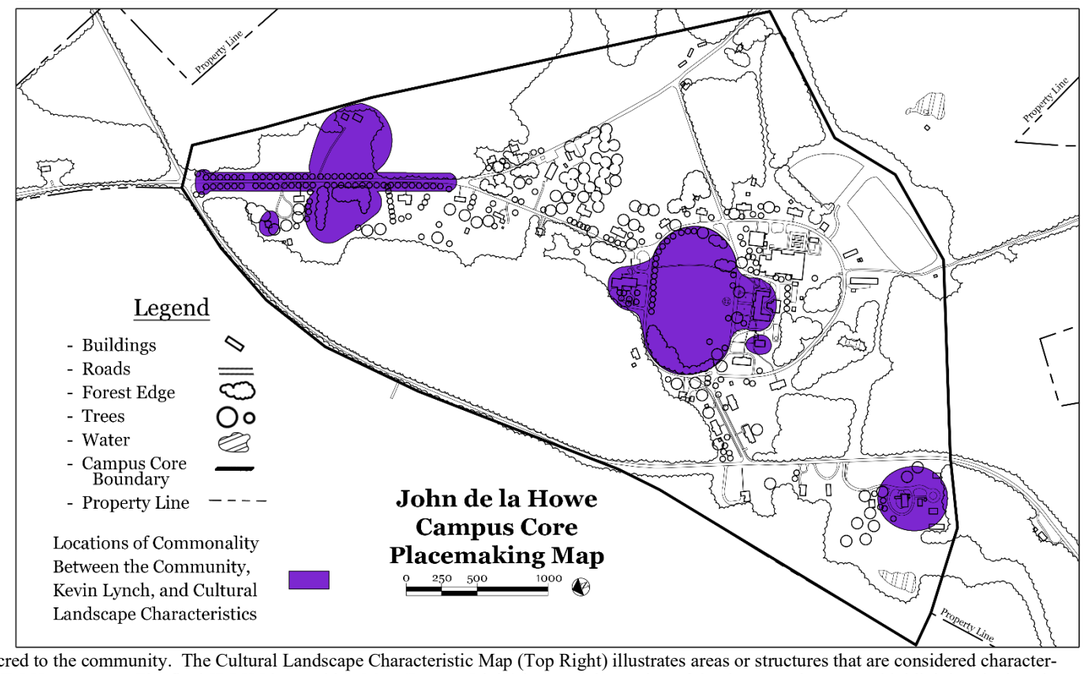


Figure 4.18 – JDLH Campus Core Placemaking Maps: The Community Map (Top Left) illustrates the locations identified on the campus core that were sacred to the community. The Cultural Landscape Characteristic Map (Top Right) illustrates areas or structures that are considered character-defining features. The Kevin Lynch Map (Bottom Left) depicts the locations, according to Lynch in *The Image of the City,* that are potential landmarks on JDLH's campus. The final JDLH Placemaking Map (Bottom Right) is an amalgamation of the three previous maps highlighting the locations of similarity. These are potential locations on JDLH's campus that could be utilized for placemarkers. (Created by Brandon Platt)

community's and authors assessment, key placemarker locations become apparent: the brick sign and main entrance; the Branch House; the two barns and pasture on the east side of Branch Drive; the Family Center; the Central Mall; de la Howe Hall; and 'The Dairy Barn.' This does not mean that other locations do not have value or meaning or that they should not be preserved. The purpose of these maps is to establish a hierarchy of importance for the campus and provide locations that the campus can bring to the forefront when establishing a unified identity. Before any changes occur, stakeholders must have a proper understanding of the site's importance through analysis and evaluation.

Evaluation: Campus Core

Establishing an in-depth examination of JDLH's existing conditions and analyzing the campus for additional patterns and placemaking potential allows for a comprehensive evaluation of the site's constraints and opportunities (Figure 4.19). From an environmental perspective, JDLH has a few constraints. Due to the site's topography and the campus' location on the peninsula, various drainage channels, streams, and ponds that lead to Lake Thurmond should be protected and maintained with effective buffers. The second major environmental constraint is the various specimen trees within the campus core that need to be preserved as they are all part of the various viewsheds around the campus. One of these vital viewsheds to maintain is the maple tree allee upon arrival at the main entrance. These maples are both historically and culturally significant to the school's past and the community. Perhaps the largest constraint regarding viewsheds is maintaining the campus core's woodland buffers, especially the buffer between Highway 81 and the campus. These buffers help to maintain the natural edge of the campus, providing a valuable backdrop for the agricultural school. In contrast, one viewshed

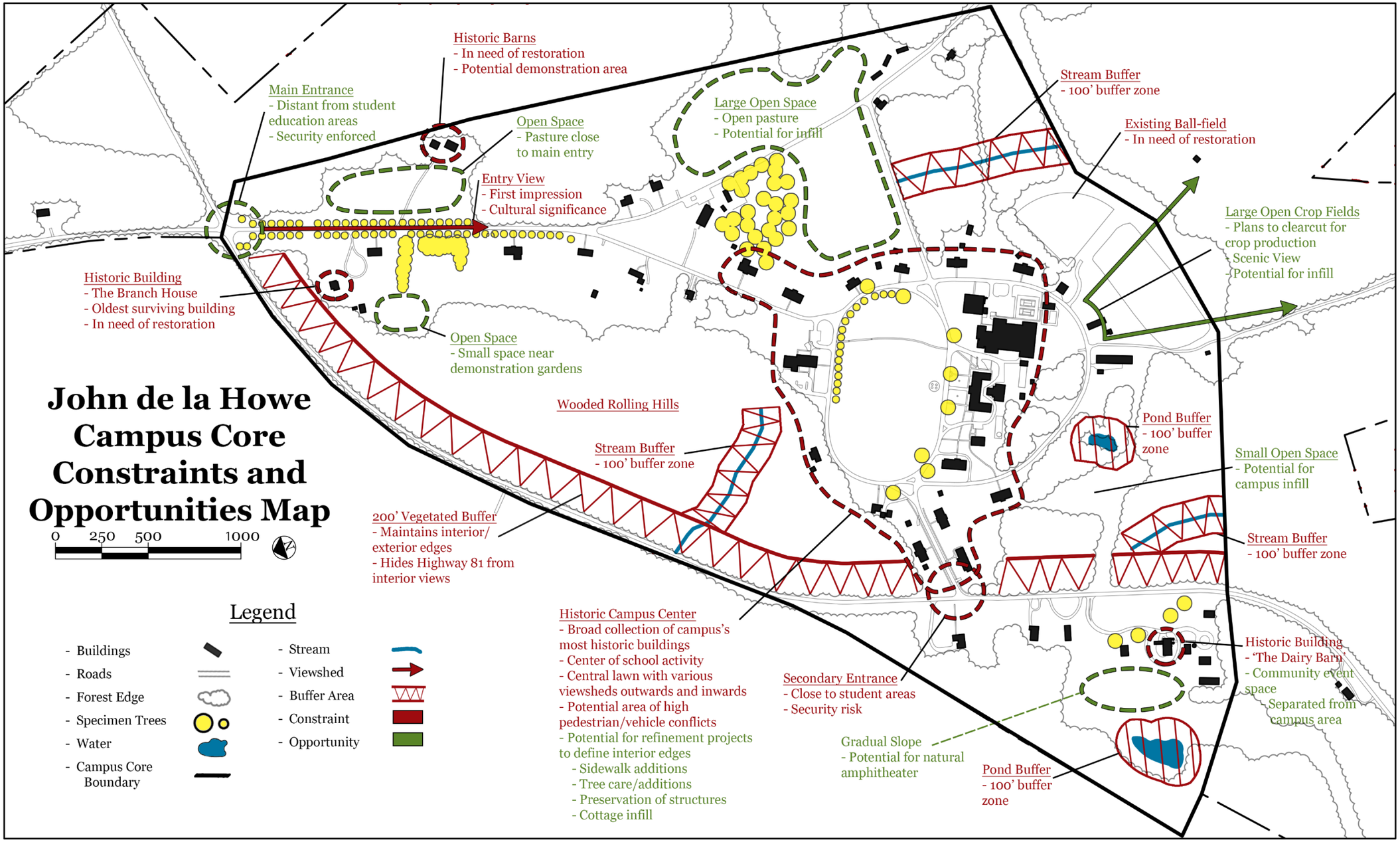


Figure 4.19 – JDLH Campus Core Constraints and Opportunities Map: This map illustrates the various constraint and opportunities JDLH faces in the development of their campus core, relying heavily on the preservation of the campus's culturally and historically important locations and features. The map identifies buffers zones around environmentally important features, locations currently available for future development, and buildings, structures, and specimen trees that should be preserved. (Created by Brandon Platt)

opportunity is the large field south of the campus near the ballfield. This area has been identified as the location for future crop rows running all the way to the lake's edge. This location's rolling downward slope to the water has the potential for a wonderful scenic view, and any utilization of this site should exploit these features.

Besides the future crop rows, other large and small open spaces on campus offer opportunities. Small locations, such as the space near the demonstration gardens, the space south of de la Howe Family Circle, and other locations within the historic campus center, each have the potential for infill parking, new cottages, or especially critical, activity spaces for students. On the other hand, larger spaces on the exterior of the preestablished campus facilities, like the pastures on Branch Drive and Tomb Road, offer opportunities for larger building infill and parking in a way that does not inundate the campus's integrity. This does not mean that these larger locations need development as these locations are also part of the natural edge that campus needs to maintain. This balance between constraints and opportunities is also needed around the historic campus center. Area refinement, like building rehabilitation, sidewalk additions, and landscape beautification, is just as important as maintaining the campus core's cultural integrity. Structures like de la Howe Hall, 'The Dairy Bar,' the Branch House, and the Family Center should be restored or rehabilitated in a way that utilizes them to their fullest while respecting their historical significance. This evaluation is a combination of opportunities and constraints that push and pull on each other and requires a delicate balancing of preservation and development techniques.

Key Takeaways:

- The agricultural facilities are located in close proximity, within walking distance, to the school buildings, which is beneficial for educational use and opportunities.

- It is essential to establish zones or districts for the planning and development of the campus to ensure unity within areas on campus and one campus as a whole.
- The school should maintain vegetated and building buffers to Highway 81 for security and as it assists in maintaining the natural edges of the campus.
- Consideration for improvements should be prioritized to the high-density pedestrian areas first.
- It is beneficial to retain preexisting locations of open space, large and small, formal and informal, for activities, events, and ceremonies if possible.
- The campus has well-established specimen trees that need to be maintained for their cultural significance.
- During the future development of the campus, the school should take into consideration stormwater drainage from the site and implement proper stormwater management strategies, especially around channels, streams, and ponds.
- Follow building construction patterns already established and should be maintained:
    - Building materials should be of similar material and color;
    - Buildings should follow preestablished setbacks patterns appropriate for each area, or be justified accordingly at junctions;
    - Building spacing distances should be maintained whenever possible;
    - Building placement should be oriented to ensure a natural view;
    - Buildings should never exceed three-stories, and if over one-story buildings should take advantage of the natural topography for placement to minimize its height;
    - Future infill where appropriate following the above precedents.
    - Exceptions to these patterns can be made when establishing a hierarchy of importance with placemarkers.
- Pedestrian sidewalks are essential within the campus core and should be extended outward to a ten-minute walking distance.
- Signage, directional wayfinding, and pedestrian priority must be established.

- Entrance to the property and campus must be clearly marked and secure for safety purposes.
- Major roads on campus must be well-kept, driveways for housing added, and proper curbs, gutters, and stormwater management should be considered in more formal or culturally significant locations.
- Parking for high traffic areas is essential.
- Additional parking for visitors, guests, and students will be needed.
- The campus has large open spaces around its peripheral and smaller locations within that can be utilized for potential infill; however, whenever possible, newer additions should follow pre-established patterns in the area.

Evaluation: Review of Takeaways

This subsection will evaluate all previous takeaways as a means of reviewing and categorizing similar points before developing a design philosophy and guiding principles for JDLH.[180] In reviewing the takeaways, certain themes came forward, including critical points for JDLH's design philosophy, various categories for guiding principles, and a set of best practices that JDLH should follow as they undertake future development. In addition to the categories, the takeaways also illustrated how vitally important the charrette actually was in initiating and informing this work. The charrette initiated a design approach focused on preserving community and historically sacred locations over pure development, relying on community input and feedback as preliminary conceptual designs were developed. This method of placing preservation before development became an important aspect of this thesis; the charrette revealed additional areas of research and analysis, moving this work towards the development of guiding principles

[180] To review the takeaways, each was measured as to whether it would qualify as something that would influence the design philosophy, be suitable as an overarching principle, or served as a best practice to follow. See Appendix C – Categorization of Takeaways Table to review each decision.

that would preserve the historical integrity of the site while allowing for development. This lens divided the site into manageable zones based upon similar aspects, allowing for specific design elements to be added in a manner that respected the site's historic locations. Ultimately, the charrette set a precedent for this thesis by applying a historical lens to the campus, revealing additional research topics, establishing a means to work at a smaller scale on a large site, and providing an initial program elements list. Moving forward, pieces of the charrette influence will be found in the design philosophy, the guiding principles, and various aspects of the best practices.

Design Principles

De la Howe understood the need for a school that could provide a constructive education for children and therefore willed his property to provide an agricultural education for children. He also understood the need that the use of his property remains as flexible as possible to support a school. For over two-hundred years, the school has persevered to provide assistance to children in need, responding to the changing needs of the community to continually serve South Carolina while remembering its historic roots. As such, JDLH should continue to adapt as it returns to its prime directive of providing agricultural education as a South Carolina Governor's School of Agriculture while still honoring its past influences. JDLH's design philosophy should, therefore, be an amalgamation of historical preservation as a means of honoring over two-hundred years of community service and de la Howe's legacy, while being mission-driven to provide the highest quality of educational facilities for its students.

Following the design philosophy, the remainder of the takeaways are be summarized into three core design guiding principles: respect history through preservation, support students and the school by being mission-driven, and strive to follow best practices of campus design.

Respect History through Preservation

Preservation should be built into the campus' guiding principles to help create a sense of pride in the campus' history and uniqueness. The natural beauty and remoteness of the location helps to reinforce the campus' history and vision as an agricultural school. The campus' beauty is amplified by its soft transitions between edges from the campus's forested surroundings, rolling pastures, and agricultural fields to the campus's core area, the Central Mall. As the school's symbolic inner core, the Central Mall holds a strong sense of historic value for the school and community, and therefore, should be maintained and reinforced. Standing as the centerpiece, the organizing framework for future development, reinforcing or changing aspects of this area should be done cautiously. Any development should show respect for the historic buildings that surround it and work to create a pedestrian-friendly environment. A vast majority of the campus' buildings were constructed during two time periods, and as such, have established various patterns that should be followed with any future development.

Supporting Students and the School by being Mission-Driven

Campus design should be mission-driven to support the school and provide students with the best agricultural educational facilities possible. Agricultural education is a complex field predominately utilizing a three-tiered model of classroom instruction, supervised agricultural experience (SAE), and youth organizations engagement (FFA). SAE and FFA should be used to

supplement classroom instruction to encourage student interest in agriculture and provide educational experiences through projects, leadership opportunities, and community engagement. The school should strive to encourage and support student interest in various disciplines by providing the best technologies, following best farming practices, and supplying research space, including indoor and outdoor educational spaces, project and experimental spaces, and demonstration spaces. Physical development that meets the needs of this three-tier program will maintain high standards and proper management that is essential for safe and effective production on a teaching and research farm. It will also be important to preserve the land to support the school's agricultural mission, as the farming and forestry operations are capable of financially and educationally supporting the school and student's needs. Currently, the agricultural facilities are located close to the school buildings, which is beneficial for educational use and opportunities, and maintaining this proximity should be considered a priority when future planning. As the school develops into a full immersion Governor's School specializing in agricultural education, the campus will need to evolve to provide students with full amenities. Serving sophomores to seniors, the program will have to provide for all aspects of their lives, including housing, food, entertainment, safety, exercise, education, and extracurricular activities. Where possible, every outdoor and indoor space should be considered for student use and safety.

Strive to Follow Best Practices of Campus Design

Any plans for the school should create a balance between preserving cherished locations and embracing new development or site renewal. Following existing Governor's School models, the campus should resemble a college campus; however, these schools were built new with little preexisting cultural significance to damage. Therefore, before any future planning occurs at

JDLH, the school should identify unique or sacred places on campus and emphasize these locations utilizing placemaking to help define the locations. When it is possible, all attempts to preserve the campus should be done to maintain the campus's integrity. The school should incorporate *The Secretary of the Interior's Standards for Preservation Planning* and *The Treatment of Historic Properties* in its day-to-day operations of maintenance and planning. These standards will assist in reinforcing the historic identity of the campus by creating focal points that visually and symbolically bind the campus together. The uniformity and integrity can be further maintained by establishing early in the planning process any restrictions for future development. It is essential to establish zones or districts for any preservation, planning, and development, especially around historic locations, to ensure unity within areas on campus. Any development that occurs should be designed to maintain the current density relative or appropriate to the preestablished size, location, and culture on campus. Designs should encourage open engagement and communication through formal and informal spaces to create a pedestrian-friendly environment. Ample space should be allotted to meet the needs of the campus' core components, including student recreation, farm facilities, educational facilities, and management facilities. All of these improvements must be done in ways that prioritize high-density pedestrian areas and maintain the natural beauty that surrounds the campus. To accomplish these tasks, the school should follow the best practices of campus design, focusing on open spaces, circulation, and buildings:

Open Space

Following the best practices for campus design, planning and development should start with green spaces on campus, the main quad, parks, and plazas. Historically these spaces are

green spaces, lawns, and shade meant as pedestrian spaces and should be reinforced as the principle organizing features in campus expansion. The JDLH campus radiates outward from the great lawn, which is generally surrounded by the school's most critical structures. When infilling and developing in these areas, it is important to protect the natural beauty surrounding the school's facilities as they are culturally significant for retaining the school's integrity as an agricultural school. Every effort should be made in maintaining the school's vegetated core, utilizing the established specimen trees and new additions to link pedestrian paths between buildings. Radiating outward to the periphery, vegetated buffers should be maintained to screen the campus from the highway to assist in maintaining the natural edges of the campus and for security purposes. The design plan should surround the open spaces with campus structures and various defined outdoor spaces with varying uses.

To create a coherent, consistent, and unified landscape across the campus, the school should develop a landscape master plan that establishes the development of major pedestrian areas, open spaces, parking lots, and landscape features. Included in this plan should be a plant palette guide and a materials guide that helps to ensure uniformity across the campus. The plant palette guide should consist of a list of standard trees and shrubs found on campus, including a mixture of deciduous, evergreen, and ornamental trees. It should also identify and provide standards for maintaining/preserving valued specimen trees across the campus. The materials guide should include a palette for retaining walls, benches, shade structures, and other pedestrian amenities as a means of maintaining uniformity.

During the planning and development of the campus, the school should consider stormwater management and drainage throughout the site and implement the best practices, especially around channels, streams, and ponds. To minimize the effects of stormwater erosion,

large surfaces, such as parking lots, should be located in areas where they can serve dual uses or buildings. If necessary, to conserve precious farmland, parking lots must be built along the highway, with a fifty-foot buffer to minimize the visual impact. While curbs can increase the appeal of areas, they can also increase stormwater runoff; therefore, there should be a balance between curbed and natural areas.

Landscaping should be utilized to control noise, divert traffic, secure boundaries, create privacy, and arrange pleasurable views around the various open spaces on campus. It is beneficial to retain preexisting locations of open space and plan for new open spaces, both large and small, informal and formal, for various activities around the campus. The school should look at improving the quality and definition of existing spaces in ways that can provide opportunities for individual and group interactions. Ample space should be allotted for farm facilities, recreation areas, guest and community areas, and educational spaces, including experimental demonstration, research, and outdoor classroom spaces.

Circulation

Pedestrian traffic on campus should always be prioritized over vehicular traffic. The campus design should create a pedestrian-friendly environment with paths designed to be functional, convenient, accessible, free of vehicles, and provide directional cues between locations. Sidewalks should be ADA accessible and designed to handle the desired uses and volume of use. Pedestrian sidewalks should radiate outward from the symbolic core of the campus, reaching a five-minute walking distance, and extending further to a ten-minute walking distance for key areas of the campus. These paths should become the primary network of movement within the campus core and should provide a pleasing and safe journey between

destinations. Vehicular traffic should be separated from pedestrians and yield at all pedestrian crossings. If necessary, the school should consider modifying vehicular circulation to create a coherent pattern and minimize pedestrian-vehicle conflicts. In doing this, the school can plan for future expansion through the addition of access roads and new routes. These changes can accommodate for conflicts and consider the various forms of vehicles utilizing the roads, including farm equipment, delivery trucks, garbage trucks, and buses. In addressing the changes, the school should be aware of existing viewsheds and entries to the campus as any changes may affect the historical integrity or safety of the campus.

Providing parking close to buildings, or between core structures, forces facilities further apart and deters from a community atmosphere. To ensure a pedestrian-friendly core, large parking facilities must be concentrated on the perimeter or periphery areas while still having well-managed circulation, vegetation for shade, and lighting for safety. Unfortunately, distant parking lots cannot always serve the needs of the entire campus, requiring some parking within the campus core for campus visitors, service vehicles, ADA spaces, safety personnel, and staff who require close proximity to their buildings. In these cases, some parking should be located on opposite sides of larger buildings from pedestrian access, thereby not interfering with the campus integrity. Parking should especially be avoided near historic buildings, unless absolutely necessary, in which case it should be located behind and out of view. Visitor parking could be allowed around the Central Mall as long as it does not interfere with the viewsheds. If in the future, the campus needs to conserve precious farmland, parking lots could be added along the highway, with a one-hundred-foot vegetative buffer to minimize the visual impact. An alternative method of regulating campus parking is to consider vehicle restrictions for students,

limiting availability for students to have vehicles on campus based upon their class status or other prerequisites.

Like parking, curbs and gutters have had little priority for the school. During future development, the school should take into consideration stormwater management strategies, especially around channels, streams, and ponds. The school should establish a balance between more natural areas without curbs and more formal areas with curbs and gutters, applying proper stormwater strategies when necessary. Similarly, directional signage on campus has had little priority. Therefore, a well-established system and style of directional wayfinding should be established and utilized across the campus to ensure uniformity. Finally, entrances, roads, and sidewalks must be clearly marked and well-lit to ensure safety.

Buildings

There appears to be a certain amount of respect given to older buildings on campus as numerous remain from earlier times, including The Branch House, 'The Dairy Barn," de la Howe Hall, and the Family Center. Some of these, along with smaller cottages, form a well-established clustering of buildings that could be reused to reinforce the identity of the campus by creating focal points. Despite being labeled as 'spread haphazardly,' there are definite building patterns established across the campus and especially around the Central Mall. As such, any new development should be designed to respect these patterns, including massing and proportions, setbacks, fenestration and detailing, materials and color, spacing distances, placement orientation, height, rooflines height and slope, and architectural designs. The campus has large open spaces around its periphery and smaller locations within the core that can be utilized for potential infill following these patterns. However, that future infill should only reflect these

patterns and not strictly imitate or mimic them to avoid creating a false sense of history, and instead work to blend with the precedents established to create a unique campus design. New construction should blend with existing styles or the most dominate in style in each area to create a balanced sense of proportions, while contributing, retaining, and reinforcing the campus' original guiding principles. Additions to historic buildings, to bring them up-to-code, like ADA ramps, should be designed to have the least visual impact as possible, utilizing walls and planting to soften the visual impact. Restrictions and styles in these areas should be established early in the planning process to ensure uniformity and integrity across the campus. When planning for future development, the designs should reinforce the Central Mall framework appropriate to the desired density of the area. Site selection decisions on building placement should be based upon the context of the campus and the overall framework. Larger structures, like residential buildings and new educational facilities, should be proposed on the periphery of the campus as a means of providing adequate parking and refraining from disturbing the interior campus integrity. Other smaller educational and recreational structures or buildings should be allotted space as infill within the campus core.

Evaluation: Program Elements

This portion of the evaluation outlines the future campus requirements of JDLH. The program elements listed below were accumulated over various meetings with faculty and staff throughout this thesis, through research into the Governor's School Programs, through campus design best practices, and the information gathered during the charrette. To date, the list includes:

- Environmental Science Education Center
- Additional greenhouses

- A machine shop
- Upgrades to the maintenance spaces (4-5,000 sg. Ft.)
- Outdoor classroom and activity spaces
- Student project spaces – demonstration, experiments, new growth
- Classrooms/laboratories/farm facilities
    - Animal care
    - Research
    - Maintenance and storage
    - SAE/FFA
- Revitalization of:
    - The gym
    - The theater
    - The library
    - Classrooms and laboratories
    - The Ropes Course
- Continued use of the Wilderness Program
- Better sidewalks, streets, and lighting for pedestrian safety
- Wayfinding pedestrian and vehicle signage
- Parking for staff, students, visitors, and events
- Road adjustments for security, large vehicles, and buses
- Designated historic or community spaces
    - 'The Dairy Barn'
    - The Branch House
    - Two Barns on Branch Drive, the demonstration area
- Housing
    - For students – 280 max. (a mixture of dormitory and cottages)
    - For staff – some around campus, more located elsewhere on the property
    - Potential for guests in some cottages
- Administration Buildings – DSS Building, President's House, and potentially de la Howe Hall
- Security concerns – parking areas, safety call boxes, visibility
- Plantings – allees, entrances, tree management
- Recreation for students
    - Water sports (swimming, fishing, canoeing)
    - Intramural activities

    - Varsity teams
- Private gardens, hiking trails, bike paths
- Student Center/Student Support Services/Mail
- Fitness Center
- Café/Coffee Shop
- Outdoor amphitheater

To say the list is extensive is an understatement; however, it speaks to the possibilities in JDLH's future and provides an opportunity for development in the years to come. Any future planning and development for the school should not just focus on the next school year but look five-ten years in the future. At the start of this thesis, JDLH planned to reopen in the August 2020 school year, accommodating for eighty students. Their vision is to be able to serve 280, tenth-twelfth grade students in five years. This ambitious goal will require an increase in every aspect of the school, from new faculty and staff to a more defined infrastructure. This thesis's goal has been to produce guiding principles that will assist in the development of these changes.

CHAPTER 5

Design Philosophy and Guiding Principles

The design philosophy is meant to focus all of JDLH's redevelopment efforts into one overarching mission that sets the tone for the guiding principles. The guiding principles then breakdown the core components of how JDLH should focus its efforts on future development. JDLH's guiding principles come from an accumulation of research from the school's history, agricultural education methodology, similar school types, campus design best practices, campus case studies, a feasibility study on the campus' future potential, and the results of a community inclusive design charrette. The last subsection below has been added to encourage JLDH to seek and undertake preservation strategies and practices in the development of placemarkers. While there is potential for tremendous amounts of new development within the campus core, it is essential now, before change begins, to take into consideration the school's historic integrity. Early on, recognizing the historical significance will allow JDLH to develop for the future while not only honoring their past but also emphasizing it through placemaking strategies.

Design Philosophy

JDLH's mission is "to provide quality agricultural education that will enable its students to be the state's future leaders in agribusiness, business, and education."[181] With this mission, the school's priority should be to provide a constructive education for youth in the agricultural field through quality teaching and educational facilities. This mission fully honors de la Howe's desire

[181] John de la Howe School, "de la Howe School for Agriculture: About Us," https://delahowe.sc.gov/about-us (Accessed August 25, 2019 and March 2, 2020).

in his will but does little to recognize over two-hundred years of service the JDLH school has provided to the South Carolina community or its continued effort to meet the changing needs of that community. Common practice directs that a school's design philosophy should be mission-driven, and therefore, JDLH should support this mission. However, few schools have such a rich agricultural education base that is present at JDLH, and if it does, preservation of the school's history has already been implemented. Considering the school's vast historical and cultural importance to agricultural education, and the community, and the future direction the school will take in South Carolina agricultural education, JDLH should work to accommodate both aspects of its design philosophy. John de la Howe, South Carolina's Governor's School of Agriculture, campus' should strive to provide the best residential accommodations and agricultural education facilities for student learning as possible while continuously working to preserve the historical and cultural integrity of school's history. To accomplish this, the school should work to integrate aspects of preservation into all forms of its guiding principles by respecting the history of the school, being mission-driven, and following the best practices of campus design.

Guiding Principles

The guiding principles below were derived from an accumulation of agricultural education philosophy, campus design best practices, and a combination of cultural landscape and landscape architecture's analysis, evaluation, and design principles. Utilizing these guiding principles, JDLH should prioritize design decisions for the entire campus over individual places or locations. While exceptions to these principles can be made, a complete investigation for all alternative options is recommended first in order to maintain the integrity and unity of the campus. The three categories below: respect history, be mission-driven, and follow best practices

of campus design, each provide overarching principles for JDLH's preservation and future development. Following these guiding principles are a few locations the school should consider for their potential placemaking opportunities.

Respect History

- Preserve the character-defining features, sacred spaces, and historic buildings that speak to the long history of the John de la Howe School campus and its alumni.
- Maintain the natural beauty and remoteness of the location that defines the campus's history and mission as an agricultural school.
- Maintain the Central Mall and surrounding historic buildings as the symbolic inner core of the school.
- Preserve the soft edges of the campus by maintaining the woods and agricultural fields that aid in the transition to the formal campus interior.
- Follow established construction and land development patterns that exist on campus for any future development.

Be Mission-Driven

- Establish spaces for agricultural education that support classroom instruction, supervised agricultural experiential learning, and youth organized engagement in aligns with the residential Governor's School model
- As a full immersion Governor's School, serving high school sophomores – seniors, the school should provide for all aspects of students' lives, including housing, food, entertainment, safety, exercise, education, and extracurricular activities.
- Strive to maintain a high standard and proper management of the farming and forestry operations to:
    - Preserve the farmland;
    - Support the school's agricultural mission with safe and effective teaching;
    - Provide fieldwork, research, and community engagement opportunities.
- Ensure that the agricultural facilities are located in close proximity to school facilities for educational use and opportunities.

Follow Campus Design Best Practices

- Develop a comprehensive campus master plan that incorporates the best practices of preservation and planning for future development.
- Create a balance between preserving cherished or sacred locations with any future development or site renewal.
- Incorporate *The Secretary of the Interior's Standards for Preservation Planning* and *The Treatment of Historic Properties* in its day-to-day operations of maintenance and planning.
- Develop zones or districts across the campus to aid in the planning and development process and to ensure uniformity within areas.
- Utilize unique or sacred features and locations on campus as placemaking opportunities to further define the campus's historic image.
- Establish early in the planning process any restrictions for future development, especially around historic or sacred locations.
- Provide educational, recreational, and management spaces throughout the campus while maintaining the natural beauty that surrounds the campus.
- Follow the best practices of campus design, focusing on Open Space, Circulation, and Buildings

<u>Open Space</u>

Open space within the campus core should work to improve the quality and definition of the space for student and educational use. The property should be maintained to utilize its regional context as a rural agricultural education school, taking advantage of the fields and forests to provide natural beauty and soft transitions to the formal campus core. The campus core – the Central Mall and historic buildings surrounding it – should be reinforced as the principle organizing feature, radiating outwards for future expansion, preserving the open expanse of lawn, and relegating development to the outside. The agricultural fields and forest should blend with the school's buildings to ensure they can adequately support the education program's needs.

Landscaping should be utilized as a means to control noise, divert traffic, secure boundaries, create privacy, and arrange pleasurable views. To accomplish this, JDLH should consider these best practices for open space:

- Develop a Landscape Master Plan with standards for major pedestrian areas, open space (Central Mall, plazas, recreation spaces), parking lots, and wooded areas within the campus core, including:
    - A Plant Palette Guide which details:
        - A list of specimen trees including maintenance and treatment plans
        - A list of standard trees and shrubs (deciduous, evergreens, and ornamental) approved for the campus with maintenance and treatment plans
    - A Materials Guide which details:
        - A list that provides standards for retaining walls, benches, trash cans, shade structures, and other pedestrian amenities across the campus
    - A Stormwater Management Strategy which details:
        - Identification of stormwater threatening areas
        - Possible erosion control techniques
        - Best strategies for curb and gutter maintenance
        - Identify points where water should move through and its final destination
- Identify and protect important landscape views when infilling and developing the campus core.
- Maintain large vegetated buffers along the highway for security and visual impact.
- Link buildings utilizing shaded pathways between destinations.
- Utilize the managed woodlands for nature trails and potential outdoor classrooms.
- Consider adding outdoor spaces to include:
    - Outdoor classrooms near or between the school buildings and agricultural fields.
    - Plazas, outdoor lunch areas, and shaded locations between or in front of the school buildings.
    - Basketball or volleyball courts, seating areas, hammock hangouts, or picnic areas near or between cottage clusters or dormitories in areas that do not deter from the natural viewsheds.
    - An outdoor amphitheater close to the school and housing clusters for small gatherings or classroom use utilizing a naturally sloping location or a bowl shape to minimize cut and fill.
    - Agricultural demonstration areas and community spaces should be closer to the entrances of campus to ensure easy access, visibility, and safety while not disturbing the daily operations of the farm and the school.

Circulation

Campus circulation should always prioritize pedestrian traffic over vehicle traffic. The campus design should create a pedestrian-friendly environment that is functional, convenient, accessible, free of vehicles, and provides directional cues between locations. Sidewalks should radiate outward from the Central Mall to reach a minimum five-minute walking distance and extend to select areas of campus to reach a maximum ten-minute walking distance. Vehicular traffic should always yield to pedestrian traffic, especially within the inner core of the campus. JDLH can accomplish this through these fundamental best practices on circulation:

- Pedestrian sidewalks should:
    - Ensure directional flow, show directional purpose, and be scaled to handle volume usage appropriate to different areas on campus.
    - Meet ADA standards to ensure usability, safety, and accessibility.
    - Be marked with wayfinding signage for visitors and guests.
    - Be shaded to provide enjoyable travel and increase use.
    - Provide crosswalks when necessary in high-volume pedestrian traffic locations.
- Vehicular roads should:
    - Be modified to minimize pedestrian conflicts, organized, and well-lit.
    - Utilize curbs, gutters, and stormwater management systems in high-pedestrian areas and transition to natural edges radiating outward from the campus core.
    - Utilize traffic calming devices such as regularly spaced trees to assist in managing vehicular traffic speeds in high-pedestrian areas.
    - Be able to accommodate for large vehicles such as farm equipment, buses, delivery trucks, and garbage trucks around building access points and in parking areas.
    - Provide informational and directional cues at the property and campus core entrances on Highway 81.
    - Ensure campus entrances are managed with security measures and directional cues for visitors, guests, or service vehicles.
- Parking areas should:
    - Concentrate large student parking lots on the periphery of the campus core to ensure a pedestrian-friendly core with:

        - Manageable circulation for easy access.
        - Vegetation for shade and decoration.
        - A campus police call box, adequate lighting, and easy visibility for student safety.[182]
        - To minimize the size and number of parking lots, consider regulations for students, such as requiring students to pass a driver's education course or restrictions against vehicles for tenth-grade students.
    - Have separate parking for staff uses.
        - Minimal staff and faculty parking near the school buildings are necessary.
        - These parking lots should be located behind and out of historic viewsheds.
    - Provide an ample amount of parking on the interior for visitors, essential staff, ADA accessible spaces, safety and service vehicles.
    - Be avoided near historic structures and the campus entries.
        - If necessary, parking near historic buildings should be behind and out of view.
    - Include parallel parking along the interior edge of the lawn of the Central Mall.
        - This should be done in small groupings (4-5 spaces) with bump-outs for shade trees.
        - It is critical to offset these parking areas with the buildings across the street so as not to interfere with the views of the structures.
    - If ever necessary, to conserve precious land, be built along the highway, with a one-hundred-foot vegetative buffer to minimize the visual impact.
- Develop a Signage/Wayfinding Style Palette for the property.
    - Include traffic signage such as pedestrian crossings, stop signs, yields, speed limits, bump signs, visitor/guest parking, ADA parking, and animal crossing signs.
    - Include signage for pedestrian and vehicular traffic such as wayfinding signs and location identification signs.
    - Include other types of informational signage like historic informational signs.
- Stormwater Management
    - Apply stormwater management strategies near large paved surfaces, such as parking lots
    - Avoid developing large parking lots and roads near channels, stream, and ponds

[182] McCormick County Police Department has an outpost located on the campus currently that will collaborate with campus police to patrol and maintain security at the main entrance gates to the campus core to ensure the safety of the students, faculty and staff. Due to the remote location of the school, the large campus size, and the lack of cell phone reception in the area, selected areas have been identified by the campus police as potential safety concerns, justifying the need for an emergency call box in certain locations.

Building

A certain amount of respect is given to older buildings on campus and should be maintained. Future development should take note of the well-established clustering of buildings that should be reinforced for the identity of the campus. Established building patterns across the campus, and especially around the Central Mall, should be respected by any future development in order to reinforce and maintain the campus' identity and integrity. New buildings should continue to radiate outward from the campus core, placing larger and more populated buildings in the peripheral areas to utilize the larger peripheral parking lots. These structures include buildings such as new dormitories or large education buildings. Future development should follow these best practices on building additions:

- Respect existing building and land development patterns, including:
    - Massing and proportions
    - Setbacks and justifications
    - Fenestration and detailing
    - Materials and color
    - Spacing distance
    - Placement orientation
    - Outward view orientation
    - Building height
    - Roofline height and slope
    - Architectural designs
- When siting placement of new buildings, consider the access school facilities need for agricultural education purposes and the regional context of the campus as a backdrop.
- In placement, remember to ensure density with no more than a five-minute walking distance between academic buildings to create a compact campus.
- Ramps on historical buildings should be designed to have the least possible visual impact.
    - Utilize an L-shape or U-shape when needed along historic buildings.
    - Use short landscape walls and plantings to lessen the visual impact of ramps and reduce the visual profile.

- New development and architecture designs should not mimic the existing, which might create a false sense of history, but instead honor it through use of its architectural style's components and elements, including facades, rooflines, fenestrations, and detailing.

Special Placemaking Considerations

While preservation strategies have been built into the development of the design philosophy, guiding principles, and best practices offered above, it would be a missed opportunity not to mention these locations of historical and cultural importance that could be utilized for placemaking. Before any new development or changes are undertaken, the school should take the opportunity to analyze the campus for places of historic significance or that are sacred to the community. The identification of these locations and landmarks can be emphasized by future development and assist in reinforcing the identity of the campus. Establishing these placemarkers early in the development phase helps to build a sense of pride on campus and in creating a hierarchy of spaces. This hierarchy is essential for determining preservation guidelines for a campus whose infrastructure is approaching a century in age. *The Secretary of the Interior's Standards for Preservation Planning* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* recommends that any rehabilitation of historic structures reference their literature to assist in maintaining the historic integrity and significance on campus. This work recommends these buildings/areas for consideration as placemarkers and suggests JDLH establish guidelines for their preservation:

- The Branch House
    - Consideration: The oldest building on site (c. 1900s) and the last surviving structure from the old school site. It is missing its original wrap-around porch.
    - Potential Use: Visitors Center, Welcome Center, Campus Museum
    - Recommendation: Produce a Historic Structures Report (HSR) for the building and respectful rehabilitation.

- Central Mall Area (including surrounding historic buildings: cottages, church, school, infirmary)
    - Consideration: The center of the campus core (c. 1910s – 1920s), serving as the underlying framework of the campus's organization, the mall area provides the campus with a traditional academic feeling. Historic structures around it are oriented to view this area, indicating importance.
    - Potential Use: Open space for significant events such as ceremonies, fairs, and open houses. Everyday use potential for students to utilize for activities or lunches.
    - Recommendation: Proper definition of the edges with curbs, gutters, and parking to reinforce the framework. Assessment of tree health and the creation of a management plan. Potential for a small plaza area across from the cafeteria. Preserve its natural beauty as a campus greenspace.
- de la Howe Hall
    - Consideration: The primary building on campus (c. 1939), named after the school's creator, and given a dominant location on the hilltop and the Central Mall.
    - Potential Use: Opportunity to be utilized as a combination of JDLH's administration offices and overflow classroom space from the L.S. Brice School building. It also has the school's auditorium.
    - Recommendation: Produce a HSR for the building and respectful rehabilitation.
- 'The Dairy Barn' (plus maintenance structure)
    - Consideration: One of the oldest buildings on the campus (c. 1920s – 1930s) and a unique granite structure in the area.
    - Potential Use: Currently used for community events and storage. Should continue to be utilized for these functions.
    - Recommendation: Produce a HSR for the building and respectful rehabilitation with potential for demonstration spaces surrounding the exterior.
- Family Center
    - Consideration: Another granite structure unique to the area and one of the oldest buildings on the campus (c. 1920s – 1930s), serving various uses over its history from the school building to offices to housing.
    - Potential Use: Currently under renovations for use as a temporary school until the L.S. Brice School building is refurbished. Recommend being utilized as a student union in the future, housing student services and activity areas, plus potential office space for management.
    - Recommendation: Produce a HSR for the building and continue respectful rehabilitation.

CHAPTER 6

Testing the Principles: Conceptual Design

The following conceptual plan is meant to supplement this work, test the design philosophy, and guiding principles through illustrations and application of those principles. It is intended to provide JDLH with examples that utilize the guiding principles above and to advise them by providing suggestions and plans for preservation, future development, and renovation. In the future, the JDLH may wish to formally adopt this design philosophy, guiding principles, and conceptual design, in which case these designs should be developed further.

Program Elements

During this thesis, it became evident that the overall scale of 1,310-acres was far too large to manage for this work. Therefore, a brief review of the entire property was completed to comprehend how the campus core connects to the property. As such, the design philosophy and guiding principles above predominately refer to the campus core area of the property. This does not infer that aspects of this design philosophy and guiding principles cannot and should not be applied to the entire property as well as the campus core. However, it is important to remember that this design decision came about during the charrette as the design team was gathering information for programmable elements. This means that some of the compiled program elements are meant for the property or lie outside the campus core boundaries established in this work. For example, the Ropes Course revitalization, located on the southern end of the property, is clearly outside the boundaries of this design. Another factor that affected the development of

these designs was the school's desire, and this works objective to produce a five-year plan. Elements such as the fitness center were omitted based upon the school's needs in the next five years. Therefore, the list below serves as a review of the program elements that could be applied to the campus core in the conceptual design:

- Additional greenhouses
- A machine shop
- Upgrades to the maintenance spaces (4-5,000 sg. Ft.)
- Outdoor classroom and activity spaces
- Student project spaces – demonstration, experiments, new growth
- Classrooms/laboratories/farm facilities
    - Animal care
    - Research
    - Maintenance and storage
    - SAE/FFA
- Revitalization of:
    - The gym
    - The theater
    - The library
    - Classrooms and laboratories
- Better sidewalks, streets, and lighting for pedestrian safety
- Wayfinding pedestrian and vehicle signage
- Parking for staff, students, visitors, and events
- Designated historic or community spaces
    - The Branch House
    - Two Barns on Branch Drive, the demonstration area
- Housing
    - For students – 280 max. – dormitory and cottages **(More will be required in the future)**
    - Potential for guests in some cottages
- Administration Buildings – DSS Building, President's House, and potentially de la Howe Hall
- Security concerns – parking areas, safety call boxes, visibility
- Plantings – allees, entrances, tree management
- Recreation for students

    - Intramural activities
    - Varsity teams
- Private gardens
- Student Center/Student Support Services/Mail
- Café/Coffee Shop
- Outdoor amphitheater

Elements that were omitted to be developed in the future included:

- Environmental Science Education Center (Located in the Wilderness area)
- Continued use of the Wilderness Program
- Fitness Center
- Recreation for students
    - Water sports (swimming, fishing, canoeing)
- Hiking trails and bike paths
- Designated historic or community spaces
    - 'The Dairy Barn'
- Housing
    - For students – 280 max. – dormitory and cottages **(More will be required in the future)**
    - For staff – some around campus, more located elsewhere on the property

The Conceptual Design

Utilizing the amended program elements in combination with the design philosophy and guiding principles, the conceptual design (Figure 6.1) provides JDLH with an illustration of potential preservation and development that could support the growth of the campus core for the next five years. In reviewing this conceptual design, the campus was divided into subsections, or zones, to depict the proposed campus plan. Various guiding principles can be seen across the campus core, some influencing the entire design while others occur at smaller, more precise scales.

Figure 6.1 – JDLH Campus Core Conceptual Campus Plan: This conceptual plan works to provide JDLH with five-year plan utilizing a list of program elements and in-depth evaluation of the campus in order to preserve and highlight historical and sacred places on campus while also renovating and developing new locations on campus to support the school mission and vision. (Created by Brandon Platt)

To guide the school in the development of the campus core, JDLH should create a comprehensive Master Plan that incorporates the guidance of *The Secretary of the Interior's Standards for Preservation Planning* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, a Plant Palette Guide, and a Materials Guide. The Master Plan should also identify zones, or districts, to simplify and unify future preservation, renovation, and development and specifically seek to maintain the natural beauty of the campus's regional context. As seen in the proposed conceptual plan, a large majority of the natural vegetation around the campus has been maintained. When necessary, additional vegetation can be added to abate noise and secure boundaries or views. This conceptual plan attempts to preserve much of the natural and character-defining features of the campus by maintaining the soft edges and easy transitions to the wooded areas. The plan focuses on maintaining and reinforcing the sacred inner core around the Central Mall while utilizing open spaces on the periphery for future development. The inner core has become a pedestrian-friendly location with the addition of sidewalks within a five-minute walking distance between destinations and ten-minute distance to further locations, such as the Branch House area. New larger structures have been limited to the periphery of the campus core, to refrain from impacting the inner core's historical significance and various viewsheds, while smaller changes such as open spaces or plazas can be created through the addition of seating or activity spaces. Larger parking has been added to the periphery of the campus near larger infill, expanded where possible within the best practice's parameters, or created out of view of historic buildings and viewsheds. Each of these decisions work to maintain the regional and historical context of a rural agricultural campus while allowing for future development.

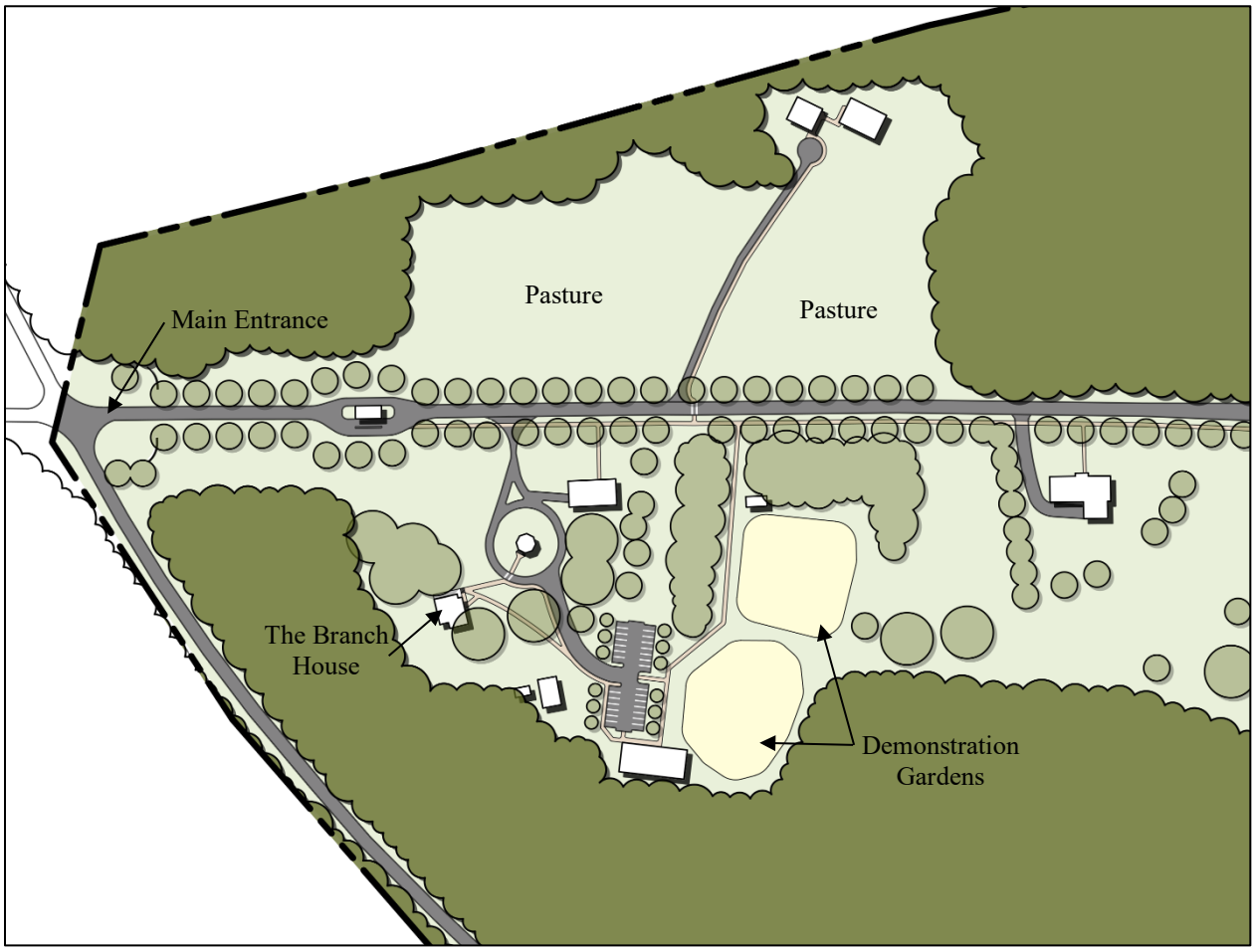


Figure 6.2 – Main Entrance and The Branch House: This area has been transformed into a welcome center and visitor's educational area offering information on the history and vision of JDLH. (Created by Brandon Platt)

Starting at the main entrance, the new plan proposes this area to become a community space capable of welcoming visitors to the campus and providing agricultural demonstration areas for community education (Figure 6.2). The main entrance is currently under consideration for the addition of a security gate, which will interfere with the entry viewshed, but is important for the safety of the students and staff. To assist in maintaining the school's historic entry, the remaining maple tree allee along Branch Drive should be maintained. After entering the campus, the immediate area is ideal for guests and visitors to learn about the school's history and mission. The Branch House has been rehabilitated for reuse as a welcome center or JDLH museum, educating visitors to the school's mission of agricultural education. The building should be

rehabilitated utilizing the best practices of preservation, including applying these practices to new additions like the replacement of its wraparound porch and an ADA-accessible ramp. Parking in this area is located behind the buildings, utilizing the existing and new vegetation to buffer it from view. If necessary, ADA parking and drop-offs can be added around the circle drive. The parking area can serve a dual-purpose, providing space for visitors wishing to view the demonstration areas as well. Located near the parking is a new maintenance, or storage, facilities building capable of serving as a greeting area for agricultural demonstrations. Linking this entire area are sidewalks that also provide a crosswalk to the pastures across the street. The two historic barns here could serve various purposes as either additional agriculture demonstration areas or potentially distant student education space falling within the ten-minute walking distance from the school. A beneficial aspect of this area's separation from the school is that community engagement activities and visitors to the campus are less likely to interfere with the school's daily operations.

The plan focuses on the renovation and redefinition of the campus's historic Central Mall, which serves as the framework of the school (Figure 6.3). The plan proposes the addition of various sidewalks, curbs, parking, and trees in an effort to protect the views around the historic buildings. Sidewalks and curbs have been added to create a pedestrian-friendly environment around both sides of the Central Mall street to provide pedestrians safe areas and keep vehicles from parking at will along the historic lawn. A small amount of parallel parking along the inner circle has been allotted for safety vehicles and visitors in locations that do not interfere with the viewsheds of historic buildings. Numerous crosswalks have been added to allow for pedestrian's priority in the area. The eastern side of the Central Mall has seen the addition of sidewalks to connect the student housing with the education buildings creating a

Figure 6.3 — The Central Mall: The symbolic inner core of the school, the Central Mall resembles many higher education institutes formal development of campus design. Adding to the wonder at JDLH are the natural transitions the school has maintained as an agricultural school. (Created by Brandon Platt)

small plaza for students on the inner circle. These renovations to the pedestrian and vehicular circulation system are to formalize and protect this area of the campus as historically significant in JDLH's past. The small open space around this area provides an opportunity for infill, while the Central Mall is a key character-defining feature of a historic education institute. Adding larger infill within the Central Mall, or around it, would deter from the historical and cultural importance the area holds, and therefore should be avoided. As such, the plan proposes it be maintained as the symbolic inner core of the school, and the plan works to redefine its edges to create a place marker for the campus.

Various options were investigated throughout the design process to support the school's student population growth with housing facilities. The option proposed in this plan proved to be the most feasible, offering close proximity to the school facilities, other housing facilities, and is located on the edge of the historic portions of campus (Figure 6.4). The landscape was already open, reducing the funding needed to clear the land while allowing the school to keep portions of their woodland and vegetated buffers. The location also allowed for a larger parking lot to be located close by to serve as a dual parking lot for student vehicles and events held along Tomb Road and within the Wilderness. Aligning the building parallel to Gettys Road, resembling the size and shape of de la Howe Hall, the new student housing building should be designed to create a small enclosed courtyard at the front and utilize the still rather large pasture to the rear for scenery. The building's architectural design and materials should follow similar patterns as other buildings in the area. Further enclosing the front of the buildings, is the small vegetated area across the street where water channels down to the pond on the south side of campus. To prevent unwanted stormwater damage, the school should implement any stormwater management strategies necessary along this channel to prevent negative effects. This wooded area has become

Figure 6.4 – New Student Housing, Parking, and Open Space: This area east of the campus along Gettys Road is a viable location for the addition of the school's new student housing facility, located on the periphery of the campus to accommodate adequate parking and away from the historically significant locations within the inner core. (Created by Brandon Platt)

a small park with an outdoor amphitheater close enough to the school to be used for classes with trails connecting the areas. To encourage outdoor activity between spaces, a pavilion has been added west of the new student housing along with a sand volleyball court. Finally, serving as either a student housing area or as additional faculty housing, duplexes have been added along

Tomb Road. Any of these changes or additions to the campus's periphery should follow the best practices offered in the guiding principles to ensure uniformity and particularly unity with the existing campus core.

Similarly, the final subsection, or zone, developed in this conceptual design proposal is an Agricultural Education Center, which should also follow the best practices and patterns

Figure 6.5 – Agricultural Education Center and Staff Parking: An illustration suggesting the addition of a facility strictly focused on Agricultural Education, the structure could provide for various program elements including new research space, classrooms, machine shops, and student gathering spaces. (Created by Brandon Platt)

outlines in the guiding principles (Figure 6.5). The addition of an education building strictly focusing on agriculture was inspired by a combination of Governor's Schools research and the programmable elements list. As the school grows, there will eventually be a need for new and updated agricultural education facilities to meet the program's needs. A similar situation came about at the SCGSAH with the need for a new music department facility to better accommodate its largest program. Recognizing that the school should maintain the highest standards possible for the safe development of its students, providing a state-of-the-art agricultural education center in the future could adequately manage such needs. The building would utilize the sloping gradient away from the historic campus core, similar to the Family Center, allowing it to be a two-story structure. The lower level could become a drive-in machine or engineering shop, allowing the ceiling to be utilized as a balcony for the upper floor. This balcony could take advantage of the combination of natural beauty and rolling farmland sloping down to the lake. The structure placement would follow established patterns and be built to better incorporate the ballfield improvements and a new road extending to the research pond just outside the campus core. The plan proposes new greenhouses in close proximity to the classrooms, while the crop rows provide excellent options to the rear of the new center. The proposed agricultural facilities would provide additional classroom space, research facilities, large assembly space, machine shops, and potentially hangout space if the school included a café inside the facility. Connecting these facilities to the existing pedestrian-friendly campus would be additional sidewalks to the east side of the L.S. Brice School building, running along the edge of the school's extended teachers parking lot. The one parking lot should accommodate both buildings during school hours and the gym and ballfield during sporting events in the evenings. Overall, this new

addition works to merge many of the program elements the school will need in the near future while keeping the historic inner core preserved.

The proposed conceptual plan is a design based upon providing the most direct needs of the school in its immediate future by reusing historic structures, reinforcing culturally significant areas, and developing the school's facilities to support the school's mission. To briefly evaluate the proposed plan, some of the campus clustering uses have shifted to better utilize spaces. (Figure 6.6). The school's main entrance has shifted further into the campus, perhaps providing more of a dramatic arrival upon entering what has become community space. The addition of the new housing facilities created one student housing area instead of several smaller ones, as these new facilities should be able to accommodate growth for the first few years. The outer cottages are then available as overflow or guest housing for visitors to the campus. This shift also alleviates any security concerns with students relocating all student housing to the campus' inner core, instead of maintaining some near the secondary entrance. Another shift from this proposal is the Family Center's potential to become an administration building with the addition of the Agricultural Education Center to the academic area. This transition places education facilities in key locations for experimental learning and research. There were also some areas untouched by this plan, including the open space area south of the campus core and 'The Dairy Barn' that were addressed by the charrette. The open space was suggested during the charrette as a potential location for future development, an option that can and should remain a possibility. However, in later discussions with the JDLH staff, there was reasonable concern with the visibility of the highway's location and a desire to keep the campus's natural edges intact for now. Similarly, the charrette suggested well-crafted plans for improvements around 'The Dairy Barn,' which should also be considered with future development. In the case of this proposal, the area was not

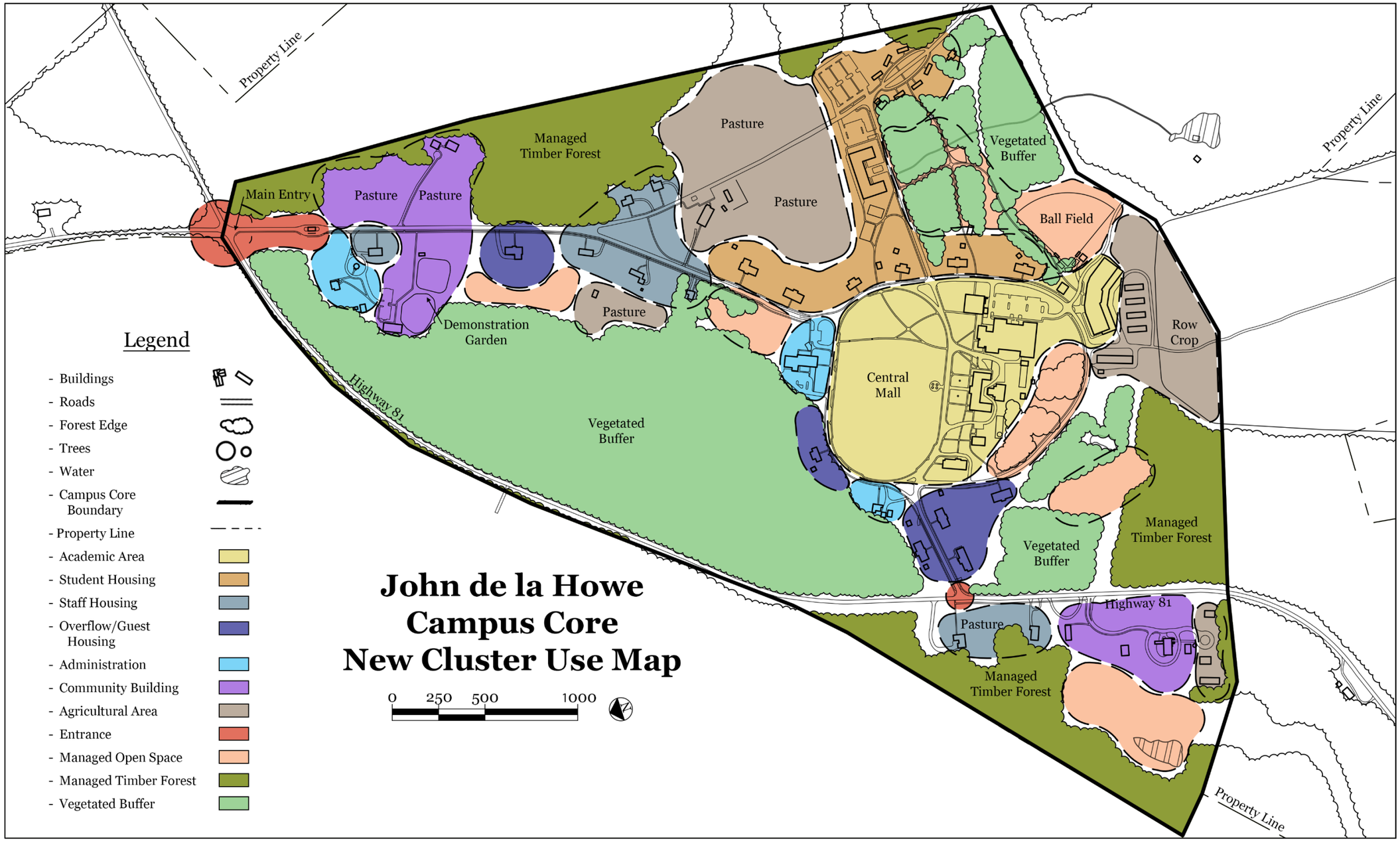


Figure 6.6 – JDLH Campus Core New Cluster Map: This new cluster use map illustrates the shifting uses of the school based upon the proposed conceptual plan. Notice the shifting of the main entrance and the utilization of the Old Site as a community event space; the concentration of student housing now focused within the campus core; the creation of guesting housing closer to the entrances; and the shifting of the school closer to the agricultural fields. (Created by Brandon Platt)

included purely based upon the immediate needs of the school. The current functionality of 'The Dairy Barn' as a community space is adequate, perhaps receiving some of the best care and treatment of preservation and reuse of any other building on campus. As such, in creating this proposed conceptual plan for the next five years of development, little was suggested with regards to either area. However, the school should continue to preserve and maintain both locations as buffers or community spaces and return to the charrette's plans when future development of the area is possible.

CHAPTER 7

Priorities List

This thesis has worked to create a design philosophy, guiding principles, and a conceptual design that could steer the school in their endeavors to become a South Carolina Governor's School of Agriculture. In order to assist JDLH in utilizing the results of this work, the following list provides the school with an order of priorities moving forward. These priorities should be seen as a fluid process, occurring either simultaneously or separately, but designed to support the preservation and development of the campus in zones. Priority has been established based upon the needs of the school, focusing on development within the five-year plan.

1. Before any planning, design, or construction begins, it is critical to have a land survey of the property completed by a registered land surveyor to provide updates to topography, vegetation, buildings, structures, and utilities.
    a. This should include verification of the property's boundaries, especially around 'The Museum Tract' and the Wilderness.
2. Acquire qualified/certified professional(s) (designer, engineer, preservationist, etc.) to act as campus planner(s) and to lead an Advisory Committee to solidify and implement these ideas over the next five years.
    a. Create an Advisory Committee comprised of three alumni (of varying generations – old, mid, and recent), facilities manager, property manager, academic manager, housing manager, and security manager that guides campus development based on this document and the campus planner's guidance.

3. To fully integrate preservation into the design philosophy and guidelines,
    a. Craft a National Register of Historic Places nomination to demarcate specific buildings and sites on campus.
    b. To assist with this or any rehabilitation of historic buildings, it is highly recommended to contact the South Carolina State Historic Preservation Office (SHPO).
    c. Craft Historic Structures Reports and individualized preservation plans for historic locations or character-defining areas you plan to repurpose to ensure proper care and maintenance. (i.e. Branch House, de la Howe Hall, 'The Dairy Barn,' and the Family Center)
4. The campus planner and Advisory Committee should create JDLH Campus Design Guidelines that incorporates standards and restrictions for any preservation and development to include:
    a. A Campus Zoning Map that identifies:
        i. Historic buildings, structures, and areas for preservation.
        ii. School facilities, farm facilities, and community spaces.
        iii. Safety, hazardous or restricted areas, and environmental concerns.
    b. Campus Standards for Preservation and Rehabilitation based upon *The Secretary of the Interior's Standards for Preservation Planning* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* and completed HSRs or other planning documents.
    c. Campus Standards for Stormwater Management (see 'Site Design for Stormwater Management,' referenced in *Landscape Architecture Graphic Standards*).

d. A list of development/infill restrictions (i.e. stormwater management purposes, historic areas, farmland restrictions, etc.).
e. A Plant Palette Guide.
f. A Materials Palette Guide.
g. A Signage Palette Guide.

5. Compile a prioritized program elements list of future needs, including various methods of meeting those needs (financial, physical, administrative, etc.)
6. Develop a Campus Master Plan detailing the development of the campus for the next five-years, ten-years, and twenty years.
7. Develop community space:
    a. Reinforcement of Central Mall:
        i. Continue preservation of historic buildings and surrounding areas.
        ii. Evaluate, maintain, and/or replace established trees around the oval.
    b. Within the Campus Core:
        i. Develop sidewalks and crosswalks along streets for pedestrian safety.
        ii. Add parking, curbs, gutters, and stormwater management strategies within the inner core.
        iii. Add small plazas, seating, and outdoor classrooms.
8. Rehabilitate L.S. Brice for the continued use as the main school building and the addition of a staff parking lot.
9. Continue to rehabilitate the remaining cottages for future student housing needs.
10. Develop parameters to build new student housing dormitory, periphery student parking lot, and outdoor student spaces near the new structure.

11. Renovate and develop new housing for faculty and staff (within and outside the campus core).
12. Repair roads:
    a. Include crosswalks for pedestrian areas and animal crossings.
    b. Add driveways for faculty housing.
13. Transition all academic uses from the Family Center to renovated L.S. Brice and utilize the Family Center as a Student Union/Administration facility.
14. Rehabilitate de la Howe Hall for school administration and spillover classrooms.
15. Rehabilitate the Infirmary.
16. Rehabilitate the Branch House for use as a JDLH Museum or Welcome Center.
    a. Develop a small parking lot for visitors.
    b. Rehabilitate two barns for the demonstration area.
17. Build an Agricultural Education Center that includes:
    a. Classrooms
    b. Laboratories
    c. Meeting rooms
    d. Machine Shops
    e. Greenhouses
    f. Student recreation space
18. Revitalize the ballfield area.
19. Develop a small wooded park between student housing and the ballfield.

CHAPTER 8

Conclusion

The purpose of this thesis has been to create a design philosophy and guiding principles for development of a magnet school of agriculture in the South Carolina Governor's School Program and to see how application of those guiding principles could create a conceptual design for JDLH. This design philosophy and guiding principles provide preservation and developmental direction to the school's future, assist in creating uniformity across the campus, build an image the JDLH community can be proud to support, and preserve the integrity and identity of the JDLH's past. This thesis sought to utilize an amalgamation of a historic preservation process known as a Cultural Landscape Report with the landscape architecture design process to assist in differentiating between places sacred to the historical significance of JDLH and places available for future development. The goal behind this was to discover a means of developing for the future without destroying the past. This combined process would take the site's history, existing conditions, and site analysis phases from the CLR to identify character-defining features and then proceed to merge the results with extensive research, analysis, and evaluation from the landscape architecture process to develop guiding principles. The overall process required in-depth research into the school's history, the Governor's School Program, agricultural education methodology, and best practices of campus design, including various case studies to comprehend the proper implementation of these practices. Following this extensive background research, the thesis moved into establishing existing conditions, analysis, and evaluation of JDLH's campus to understand how best to apply the guiding principles discovered

through the research. By reviewing takeaways from each subsection of research, this thesis was able to synthesize the vast quantities of information to produce guiding principles and best practices for the preservation and future development of JDLH's campus.

Establishing the above as my goal and following through with that goal was an arduous task for someone who knew little about cultural landscapes, historic preservation, and landscape architecture. There have been many humbling moments and realizations throughout this process, and none more important than the realization that the cultural landscape process and landscape architecture design processes are essentially the same thing, just with different perspectives and concentrations. In completing the background research for this work, there were hints to this in researching the campus design section and reviewing the case studies that all showed interest in the analysis and preservation of the campus' identity and integrity. This research illustrated that preservation could be, and in most cases was, a part of a campus master plan. More importantly, it showed me the process, structure, and organization to use when completing the existing conditions, analysis, and evaluation. These things were still not wholly evident to me until I began the actual mapping of existing conditions and attempted to decide which maps to create based on which process I was going to use. It was here that I began to see the connection and discovered that they were one in the same process, with different focuses or emphasis depending on what the landscape architect or preservationist was trying to reveal. From that point, while it was easier to comprehend all of the information that should be included in the creation of guiding principles, it was still difficult to condense the vast quantity of information into all-encompassing principles. Even after my defense, I found myself researching the best methods of

consolidating information into guiding principles, and especially illustrating constraints and opportunities that explained my design decisions.

One part of this thesis that was vital, and arguably, the most time consuming, was the charrette. Having been asked whether I would still have done the charrette when I did or if I would have pushed it back in the process, I would argue that the results of the charrette helped to focus my future research. The charrette provided me with a better understanding of what needed to be researched and provided me with the identification of critical locations on the campus to preserve. It identified placemarkers on JDLH's campus and pushed me to examine ways to create guiding principles for the preservation of these locations. It also altered my perspective on how to view this design project. Going into the charrette, my train of thought was on preserving the campus as much as possible and allowing development in locations that would not deter from the campus' feeling. It was during the charrette that I began to see the community's focus was not on preservation, but rather the future direction JDLH. It was only later, in reading about campus design, that I began to truly comprehend that through the emphasis of key locations, a campus can retain its identity and history while still moving forward.

The purpose of this thesis has been to answer, what are guiding principles that can aid in the development of a magnet school of agriculture in the South Carolina's Governor's School Program and how to apply those guiding principles through a conceptual design. I feel I answered this question through extensive research and a thorough examination of the JDLH property to produce and test guiding principles. These guiding principles were based upon methodologies and best practices of historical preservation and landscape architecture and supported through an investigation into the school's past and future mission. While I was initially aiming to merge these methodologies together, I learned that the processes were

realistically one and the same. The result of this work has been the production of guiding principles and a conceptual design for JDLH that honors its historical past and works to incorporate new development for the school's growing future. Realizing that the landscape architecture and CLR processes are the same with different focuses took some time to understand; however, I have come to appreciate the cultural and historical value people have for places and buildings in the landscape. It has been interesting to discover the complex patterns that have developed over the last two hundred years at JDLH, that without utilizing both perspectives would have essentially slipped by me. Overall, I feel that using both perspectives, like using landscape architecture in combination with engineering or an ecology perspective, helps to illustrate things otherwise unseen. Using a historical preservation perspective, therefore, allowed me to identify and add a preservation perspective in the development of a design philosophy and guiding principles as a means of retaining the school's historic identity and integrity.

While one result of this thesis was the production of a conceptual design for JDLH, I want to stress that the more important aspect that came out of this work was the development of a design philosophy and guiding principles. The conceptual design is one of the various options available to the school, which follows the prescribed directives of the guiding principles. The design itself is limited to development within the next five years and should be reevaluated to meet the ever-changing needs of the school as they see fit. For example, there are clear similarities and differences between the charrette designs and the final conceptual designs offered in this work. Some areas in the final conceptual design very closely resemble the charrette designs with minor alterations or more accurate detailing, like the main entrance area. In that case, the designs for this area were altered slightly based upon the best practices

suggested throughout the campus design research. Other areas of the final conceptual design changed completely based upon conversations with the school after the charrette or as a result of additional research. Student housing, for example, was a major area of debate during the charrette, with questions ranging from where to locate new housing, to the potential for extending existing housing, to reutilizing the existing structure. The conceptual design was a result of various conversations with JDLH staff, and campus design and Governor's School research that provided the best practices for schools in similar situations. The last few differences, like around 'The Dairy Barn,' are a result of focusing the schools' efforts in vital areas of development in the allotted five-years, which does not mean that the school cannot utilize a charrette design in the future. Overall, there are still many research, designs, and projects that could and should be pursued at JDLH in the future. A full documentation of the school's history is still incomplete and could be verified; numerous locations of the property would benefit from landscape designs; the campus's master plan should be evaluated and developed to further support the school's mission and vision; a large study of the property and its uses in combination with the campus core should be completed; accurate surveying and property assessment should be completed; an investigation into "The Museum Tract" and its boundaries would be beneficial; and, various rehabilitation projects on some of the buildings should be completed.

When starting this research, almost two years ago, my first intentions were to assist JDLH with the development of the school's campus through the creation of a campus master plan. I never imagined the depths of complexity required even to come close to answering such a challenge. In this process, I also set out to answer a question for myself that is related to this thesis' primary question; how can I bring the past to the forefront of the design process, working

to honor it and utilize it in a way that does not destroy or forget it? As a future landscape architect, I have been looking for a method to merge history and the design process, and I believe I am closer to understanding how this is possible through design processes like developing preservation-related guiding principles and utilizing placemaking techniques.

REFERENCES

Alanen, Arnold R. and Robert Z. Melnick. "Introduction: Why Cultural Landscape Preservation?" In *Preserving Cultural Landscapes in America*, edited by Arnold R. Alanen and Robert Z. Melnick. Baltimore: The Johns Hopkins University Press, 2000.

Arendt, Randall, Elizabeth A. Brabec, Harry L. Dodson, Christine Reid, Robert D. Yaro. *Rural by Design: Maintaining Small Town Character*. Chicago, Illinois: Planners Press, American Planning Association, 1994.

Booth, Norman K. *Basic Elements of Landscape Architectural Design*. Prospect Heights, Illinois: Waveland Press, Inc., 1983.

Chamberlain, K. *South Carolina Governor's School for the Fine Arts*. Athens, Georgia: University of Georgia Thesis, 1999.

Chesapeake Bay Governor's School. "Chesapeake Bay Governor's School: About Us." https://cbgs.k12.va.us/overview-mission/ (Accessed December 23, 2020).

Croom, Barry. "The development of the Integrated Three-Component Model of Agricultural Education." *Journal of Agricultural Education* vol. 49, no. 1 (2008): 110-120.

Dober, Richard P. *Campus Design*. New York: John Wiley & Sons, Inc., 1992.

-----. *Campus Landscapes: Functions, Forms, Features.* New York: John Wiley & Sons, Inc., 2000.

Federation of Animal Science Societies. *Guide for the Care and Use of Agricultural Animals in Research and Teaching*. 3rd ed. Champaign, IL: Federation of Animal Sciences, 2010.

Fletcher Farr Ayotte Inc. *Reed College Heritage Master Plan: Forward.* Portland, Oregon: Reed College, 2006.

Hopper, Leonard J, and others, eds. *Landscape Architectural Graphics Standards*. Hoboken, New Jersey: John Wiley & Sons, Inc., 2007.

Kenney, Daniel R, Ricardo Dumont, and Ginger Kenney. *Mission and Place: Strengthening, Learning, and Community through Campus Design*. Westport, Connecticut: American Council on Education and Praeger Publishers, 2005.

John de la Howe School. "de la Howe School for Agriculture: About Us." https://delahowe.sc.gov/about-us (Accessed August 25, 2019, and March 2, 2020).

John de la Howe School: The de la Howe Story as Told by Its Trees. McCormick, South Carolina: John de la Howe School, 1999.

Jones and Fellers, Architects and Engineers. *Comprehensive Campus Plan: John De La Howe School.* Augusta, GA: Jones and Fellers, 1967.

LaGro Jr., James A. *Site Analysis: A Contextual Approach to Sustainable Land Planning and Site Design*. Hoboken, New Jersey: John Wiley & Sons, Inc., 2008.

Lewis, J. D. "McCormick County, South Carolina." https://www.carolana.com/SC/Counties/mccormick_county_sc.html (Accessed February 16, 2020).

Lynch, Kevin. *The Image of the City*. Cambridge, Massachusetts: The MIT Press, 1992.

Marzano, Robert J. "Setting the Record Straight on "High-Yield" Strategies: Watching your work adopted by educators across the nation is flattering, but not if it's widely misinterpreted." *PDK International*, vol. 91, no. 1 (2009): 30-37.

National Charrette Institute. *NCI Charrette System Certificate Training*. Michigan State University: Board of Trustees of Michigan State University, 2019.

National Park Service. "Cultural Landscapes." https://www.nps.gov/articles/cultural-landscapes-101.htm (Accessed January 8, 2020).

Niles Bolton Associates. "Rabun Gap Nacoochee School, Rabun Gap, Georgia." https://www.nilesbolton.com/rabun-gap-nacoochee-school (Accessed January 10, 2020).

Page, Robert R., Cathy A Gilbert, and Susan A. Dolan. *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques.* Washington, D.C.: U.S. Department of the Interior, National Park Service, 1998.

Roberts, Grady T and James E. Dyer. "Characteristics of Effective Agriculture Teachers." *Journal of Agricultural Education.* Vol. 45, no. 4 (2004): 82-95.

Sasaki, Hideo and Lord Aeck Sargent Architecture. *Campus Master Plan: Abraham Baldwin Agricultural College.* Tifton, GA: University of Georgia, 2006.

Schuyler, David and Patricia M. O'Donnell. "The History and Preservation of Urban Parks and Cemeteries." In *Preserving Cultural Landscapes in America*, edited by Arnold R. Alanen and Robert Z. Melnick. Baltimore: The Johns Hopkins University Press, 2000.

Senate Finance Committee and House Ways and Means Committee. *John de la Howe School Feasibility Study.* McCormick, SC: John de la Howe School, 2017.

South Carolina Governor's School for the Arts and Humanities. "South Carolina Governor's School for the Arts and Humanities: About." https://www.scgsah.org/about (Accessed December 22, 2019).

-----. *Governor's School Course Selection Guide 2019-2020.* Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2019.

-----. *South Carolina Governor's School for the Arts and Humanities Student Handbook: 2019-2020 Residential High School.* Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2019.

-----. *South Carolina Governor's School for the Arts and Humanities: Transmittal Message.* Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2000.

South Carolina Governor's School for Science and Mathematics. "South Carolina Governor's School for Science and Mathematics: About." https://www.scgssm.org/about (Accessed December 22, 2019).

-----. *South Carolina Governor's School for Science and Mathematics: Course Catalog 2019-2020.* Hartsville, South Carolina: South Carolina Governor's School for Science and Mathematics, 2019.

-----. *Envisioning the Future: South Carolina Governor's School for Science and Math Strategic Plan.* Hartsville, South Carolina: South Carolina Governor's School for Science and Mathematics, 2018.

-----. *GSSM Journey.* Hartsville, South Carolina: South Carolina Governor's School for Science and Mathematics, 2019.

The Bicentennial History Committee of the John de la Howe School. *Still Caring, Still Dreaming: The First Two Hundred Years at John de la Howe School*. McCormick, South Carolina: The John de la Howe School, 1996.

The Getty Foundation. "The Getty: Campus Heritage Grants." http://www.getty.edu/grants/conservation/campus_heritage.html (Accessed January 16, 2020).

The National Conference of Governor's Schools. "The National Conference of Governor's Schools: About." https://www.ncogs.us/about.html (Accessed January 8, 2020).

The National FFA Organization. *Agriculture Teacher's Manual: A Guide for Prospective, New and Experienced Agriculture Instructors/FFA Advisors*. Washington, D.C.: The National FFA Organization, 1998.

The South Carolina Governor's School for the Arts and Humanities. *Annual Accountability Report Fiscal Year 2000-2001*. Greenville, SC: South Carolina Governor's School for the Arts and Humanities, 2001.

Van Citters Historic Preservation, LLC. *New Mexico State University Heritage Preservation Plan, Volume 1.* Albuquerque, NM: Van Citters Historic Preservation, 2009.

-----. *New Mexico State University Heritage Preservation Plan, Volume 2.* Albuquerque, NM: Van Citters Historic Preservation, 2009.

World Monuments Fund. *Preserving the Textile Block at Florida Southern College.* Lakeland, Florida: World Monuments Fund, 2011.

APPENDICES

Appendix A:

Project Brief: Community Assessment for the

John de la Howe Charrette

McCormick, SC – October 4th – 6th 2016

John de la Howe School is a historic school in South Carolina, which closed in 2018 with the intention to reopen and reestablish its mission of being an agriculturally based magnet school for high school students. The school will reopen in August 2020 as a magnet school of agriculture with the goal of becoming the state's Governor's School of Agriculture. In cooperation with Frank Dorn, the Director of Agriculture Operations, Brandon Platt, is working to provide an informed conceptual master plan, envisioning the campuses development five years in the future. This process will begin with a three-day charrette intended to obtain stakeholder input in the form of (a) preliminary design(s) to allow for valuable community feedback in the further development of a working master plan. Following the charrette, Brandon will use the data gathered, the preliminary design(s), and additional research from case studies to further develop a master plan to meet the needs of the school while honoring its historic past.

History

John de la Howe was an older settler, possibly from Northern France, Holland, or Flanders, when he arrived in Charleston, SC, in 1764. As a physician, de la Howe stayed in the Charleston area for ten years before he began slowly purchasing various tracts of land throughout South Carolina's Piedmont and Low Country, eventually accumulating upwards of 2,600 acres. A majority of this land became known as the Lethe Plantation located in the New Bordeaux area, what is now parts of Abbeville and McCormick Counties in South Carolina. Throughout his working life, he would travel between locations serving not only as a physician but also as the justice of the peace while actively managing his plantation. In 1785, after an arduous life of

public service, de la Howe finally settled at the Lethe Plantation, where he lived with Rebekah Woodin for the remainder of his life. On January 2, 1797, John de la Howe passed of old age. Upon passing, de la Howe bequeathed 1,500 acres of his estate to become a farm school to teach agriculturally based manual labor skills to orphaned boys and girls on the Lethe property. Entrusting this task to the Agriculture Society of South Carolina in Charleston, the Society assigned a committee to execute the will and appointed a local community leader to manage the property. However, due to financial complications and the obscure distance from Charleston, management and facilitation of his wishes became difficult. With little guidance, it would be 43 years before the school would actually come into existence. During this time, the property's management changed hands various times, eventually being handed over to the South Carolina State Legislature, who established a Board of Trustees to manage the property with strict orders to open a school.

In December 1833, the school opened to thrive well into the 1860s, even profiting during the Civil War; however, the school struggled in the post-war years from poor harvests. By the 1880s, despite full enrollment, the school's profits were cause for concern Board of Trustees and State Legislature, who authorized the school's closure on December 17, 1881. Between 1882-1894, the school operated only as a farm but managed to recuperate and construct new brick buildings with updated facilities for the purpose of the school's mission. In 1894, the school reopened to find themselves facing a new challenge in the form of a public school system. Still struggling to fill the school, the Board of Trustees once again closed the school in 1911, while the State Legislature modified the mission of the school "to make the school responsive to the needs of a different society in a different time."

In 1918, the State converted the school into a state agency intended to serve a larger mission throughout the state as a child welfare program with state-backed resources. The school reopened in 1919 and moved to its current location from the old Lethe Plantation site, renamed the John de La Howe Industrial School. Over the next seventeen years, various buildings were added to the site, including cottages, administration buildings, a dairy barn, and various other agricultural buildings. Disaster hit on November 7, 1937, when a great fire destroyed one of the original stone buildings, de La Howe Hall.

Around this same time, the school again refocused its purpose, changing its name to the de la Howe State School and shifting from an educational institute into a place of refuge for children

in need. Working more as a social institute, the school was in a unique situation being not classified or under any agency jurisdictions and reporting directly to the Governor and State Legislature. From this point forward, the school began functioning as a safe haven for youth. Most recently, the school found itself in tough times again, suffering from misguided management, and as a result, the school closed in 2018 to realign its mission and return to their agricultural education beginnings.

Site Description/Program

The site is 1,310 acres located in McCormick, South Carolina, along the Little River, a tributary of the Savannah River. The area is heavily forested with two state national parks, Elijah State Park and Baker Creek State Park adjacent to the site. In addition, there is also a small but active retirement community called Savannah Lakes Village, who has offered their support to the school. McCormick County is relatively small in population with just over 10,000 people and a land area of approximately 394 square miles. The city of McCormick is within a 10-minute drive from the De La Howe site offering a Food Lion (supermarket), a quaint Main Street area, a few fast-food restaurants (including a Hardees, Subway, Burger King, Huddle House), and a few other local establishments.

When the school reopens in August 2020, their immediate plan is to accommodate approximately 80 high school students (grades 10^{th} – 11^{th}) in their first year. Within five years, the school aims to increase its numbers to 325 students with the full age range of high school students. The school's curriculum will include typical course classes with a special focus on agricultural and animal husbandry labs while serving students from the local community and statewide interested in the agricultural industry. It is anticipated that onsite housing and additional physical facilities will be required to meet the needs of future students and faculty. In addition to this, the school will continue to operate as a farm, offering a firsthand experience to students.

The Thesis Question: How can the combination of the history of the de la Howe farm, current property managers, and community members inform the development of a sustainable agricultural educational school?

Potential areas of need identified in preliminary stakeholder meetings:

- Parking (capacity and location)

- Resident Housing (renovation of existing buildings and potential for new buildings)
- Outdoor spaces (small pocket parks, outdoor classrooms/labs, trails through the wilderness, activity spaces, athletic fields)
- New buildings (new residential/educators housing, recreation center, pool, greenhouse, education building, farm facilities management, mechanics shop)
- Land usage (identification and justification of zones for educational, event, forestry, and agriculture purposes)
- Circulation and flow of the campus (sidewalks, streetlights, etc.)
- Landscaping (trail network, greenspace, tree management, mowing plans, etc.)

Deliverables

From the Charrette:

- Input from the community stakeholders that identifies historic and culturally significant place and things on the property
- Input from the property managers and staff that identifies current and future needs, desires, developments on-site (including identification of potential new uses for old buildings and the need for new buildings)
- Historic, current, and future thought on land usage that will help in the identification of areas appropriate for future growth
- **Several preliminary design concepts** that identify areas of historic importance and offer informed design options for future land use, including potential locations for parking, new buildings, etc.

From the Thesis

- An informed document that takes into consideration the history of the site, the current needs of the property, background information and lessoned learned from similar case studies, and the future goals of the school
- **A final master plan** that offers informed design suggestions that illustrates the campus development over the next five years

Charrette Schedule

Friday, October 4

8:00 am	Meet at UGA motor pool
8:15 am	Depart for John de la Howe
9:45 am	UGA Team arrival at John de la Howe
10:30 am	Stakeholder Input Meeting
12:00 pm	Lunch – Subway sandwiches
1:00 - 4:00 pm	UGA Team tours property with Key Stakeholders
4:00 - 6:00 pm	Small group work begins
6:00 pm	Dinner – Spaghetti
7:00 - 8:00 pm	Small group work

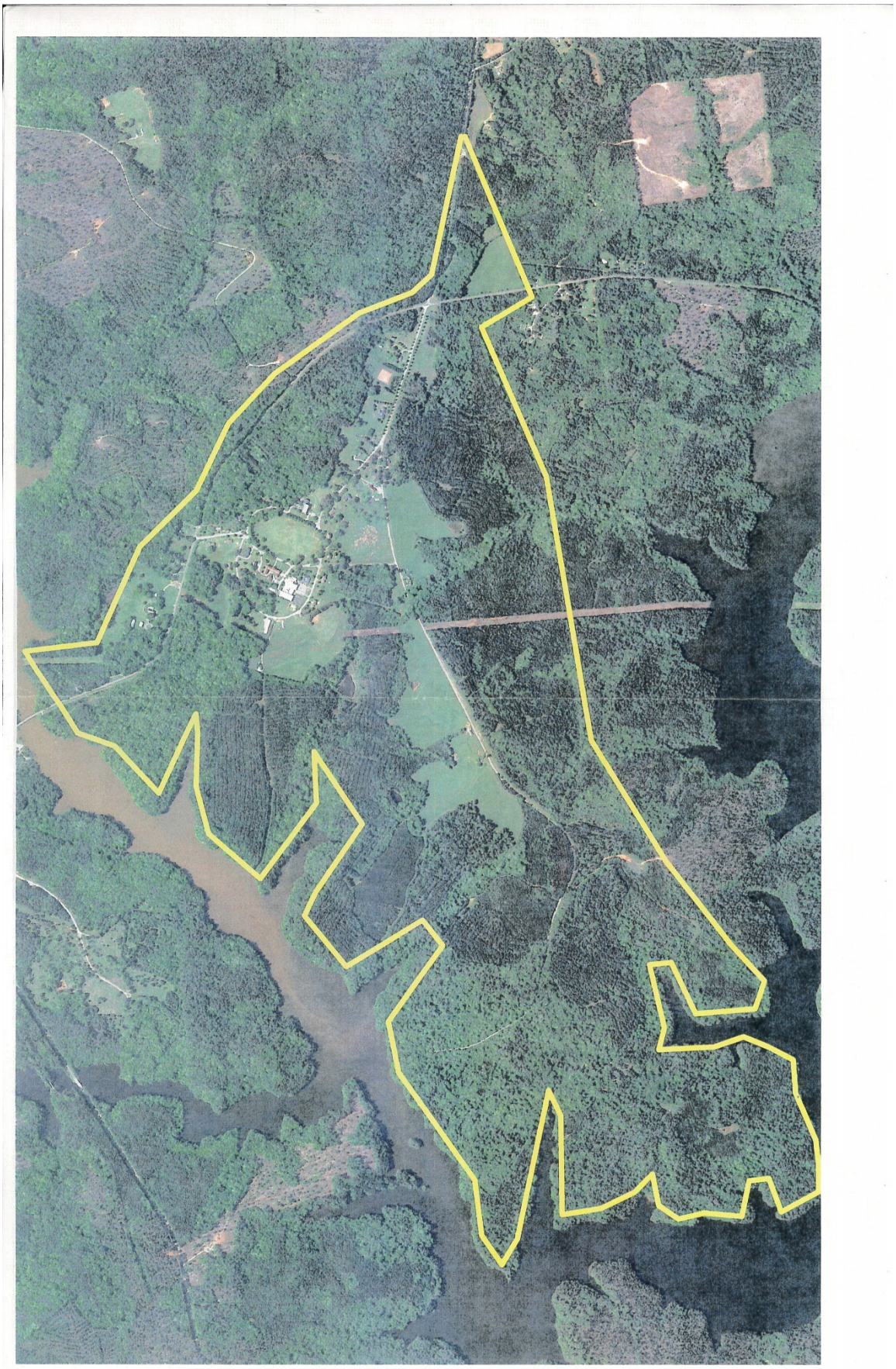
Saturday, October 5

8:00 am	Breakfast – Brandon's Mom Cooking
9:00 am - 12:00 pm	Small group work
12:00 pm	Lunch – cold cuts/sandwiches or pizza
2:00 - 4:00 pm	Mid-point Presentation Feedback
4:00 - 6:00 pm	Stakeholders depart; UGA team refines ideas
6:00 pm	Dinner- grill out: burgers dogs, etc.
7:00 - 8:00 pm	Small group work

Sunday, October 6

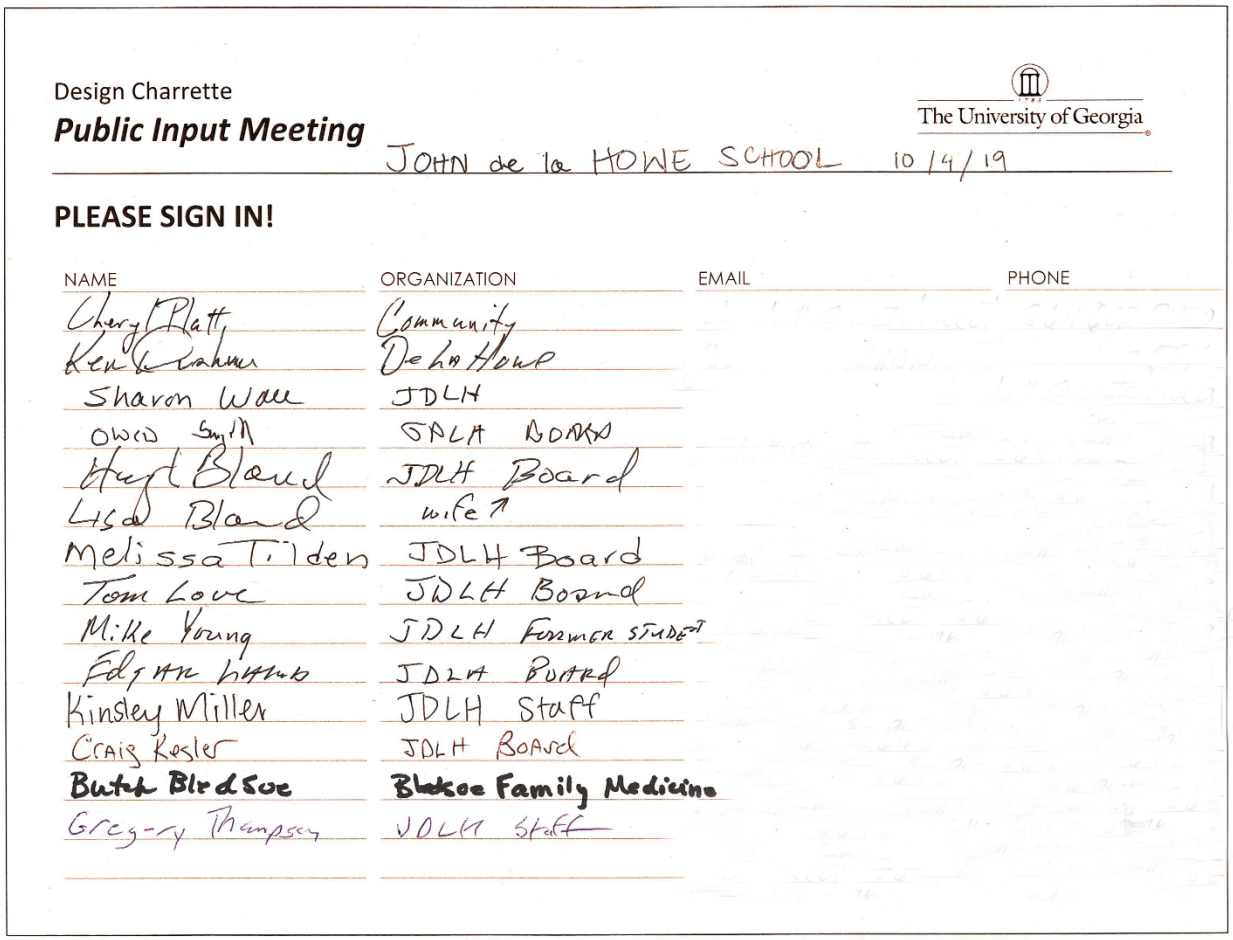
8:00 am	Breakfast – Brandon's Mom Cooking
9:00 am - 12:00 pm	UGA team finalizes concepts for final presentation
12:30 pm	Lunch – fried chicken, mac n cheese, another veggie, salad
2:00 - 3:00 pm	Final presentation to stakeholder
3:00 pm	UGA team returns to Athens
5:00 pm	Arrive back in Athens


John de la Howe School
McCormick County, SC
N
RICHEY
FS 561
81
MILL CREEK
Legend
Stand Type Acres
1 Upland hdw/pine mix 174
2 22 year old planted loblolly pine 13.7
3 Mature natural pine 4.6
4 20 year old planted loblolly pine 171.3
5 Hardwood drain 26
6 Young natural pine regen. 62.4
7 Mature loblolly pine 37.1
8 Mature pine/hardwood 206.1
9 Natural regenerated cutover 74.2
10 Ropes course stand 2.4
11 Mature loblolly pine w/ natural regen 131.8
12 Field planted longleaf pine 4.7
13 Field planted loblolly pine 12.5
Wildlife Openings 4.85
Ponds 1.8
Tomb area 162
Agriculture areas 103.85
Campus 117.25
Woods Roads
Powerline
Jaime Jones-SC Forestry Commission
Forest Stewardship Plan
2009 NAIP Photo
November 2012
Note: All boundary lines and acreages are approximate.
0 1,000 2,000 4,000
feet



Appendix B:

Charrette Attendance Day 1, Community Participants



Design Charrette

Public Input Meeting

The University of Georgia

JOHN de la HOWE SCHOOL 10/4/19

PLEASE SIGN IN!

NAME	ORGANIZATION	EMAIL	PHONE
Cheryl Platt	Community		
Ken Lahmer	De la Howe		
Sharon Wall	JDLH		
Owen Smith	JDLH BOARD		
Hugh Bland	JDLH Board		
Lisa Bland	wife ↗		
Melissa Tilden	JDLH Board		
Tom Love	JDLH Board		
Mike Young	JDLH Former Student		
Edgar Harris	JDLH Board		
Kinsley Miller	JDLH Staff		
Craig Kesler	JDLH Board		
Butch Birdsoe	Birdsoe Family Medicine		
Gregory Thompson	JDLH Staff		

Appendix C

Categorization of Takeaways Table

D.P. = **Design Philosophy** **G.P.** = **Guiding Principles**

OS = **Open Space** **C** = **Circulation**

B = **Buildings** **P** = **Preservation**

Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 2: Backgrounds Research – The History of John de la Howe Property								
1	De la Howe understood the need to provide a constructive education for youth in a rural community as well as the flexible use of his property to support a school for orphaned children.	X						SUPPORT SCHOOL
2	The property was willed to become an agricultural-based farming school for children of the area.	X						
3	The financial situation of the school delayed the construction of the school, and through perseverance, the property can work as a school.	X						SUPPORT SCHOOL
4	The Branch House (c. 1900s – 1910s) is the oldest remaining structure on campus and						X	HISTORY/PROGRAM ELEMENT

	the last of the original school site's structures.							
5	The school chose to alter its mission to include much of the original purpose of de la Howe's Will and be responsive to the need of the community it serves.	X						UP-TO-DATE
6	Of the original buildings on the 'Old Site,' the only one that remains is the Branch House (c. 1900s – 1910s).							PROGRAM ELEMENT
7	A vast majority of the campus was constructed in two time periods; 1930 – 1940 and 1970 – Present, with a few alterations being made between these periods.		X					
8	In 1967, an architecture and planning firm identified the following:		X			X		PATTERNS
	Established building setbacks around the central mall and the entry road.					X		
	Structure density is 'spread haphazardly,' with a patterning of distances between each that allows for views of individual structures as well as groupings of structures.					X		
	Directional signage was not present before the 1967 plan.				X			
	Parking, curbs, and gutters around the campus have been of little priority as their necessity, and the number of vehicles on				X			

	campus up to the 1967 plan was so low.							
	The school's recreation facilities are located in areas of or surrounded by natural beauty.		X	X				
9	The central mall's creation and function are currently unknown; however, the historic value and sense of place it holds for the school is evident in the lack of changes.		X				X	
10	There appears to be a certain amount of respect for older buildings as numerous remain from the early 1900s.		X			X		
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 2: Backgrounds Research – Governor's School Program								
1	A Governor's School is a highly selective program that serves qualified students through immersion in a specialized subject.		X					
2	The program is designed to serve juniors and seniors providing for all aspects of their lives; housing, food, entertainment, safety, exercise, schooling, and extracurricular activities.		X					
3	Student residence halls on campus are separated by gender.		X			X		PROGRAM ELEMENT

4	Outdoor spaces for activities are limited; however, they are provided where possible.		X					
5	Students are not allowed to have vehicles on campus, presumably due to the lack of space for parking and the potential safety and security risks in the school's area.					X		
6	The school should consider the construction of specialized buildings to meet the needs of the student body or specific programs when possible.						X	PROGRAM ELEMENT
7	The school must implement practical security measures to ensure the safety of the student, faculty, and staff.		X					
8	The classes and campus are modeled after a college campus.		X					
9	The school started slowly with a few students growing structurally to meet the changing needs of the students and campus.	X						
10	The school encourages and supports student interest in various fields of study through technology, research spaces, and opportunities.		X					
11	Residence halls are gender separated.		X					PROGRAM ELEMENT
12	The school provides student activities, social and educational facilities, dining, sports,		X					

	and clubs and societies for students.							
13	The school requires independent research during the summer for completion of the program.		X					
14	As a non-residential school, the program buses students to the locations from fourteen locations.				X			PROGRAM ELEMENT
15	Students can gain an appreciation for the environment through fieldwork.			X				
16	Students can work with their communities to improve their local ecosystems.			X				PROGRAM ELEMENT
17	The school is a three-year program allowing tenth-grade students to participate.		X					
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 2: Backgrounds Research – Agricultural Education								
1	Agricultural education is a complex field predominately utilizing the three-tiered model of classroom instruction, supervised agricultural experience, and youth organization engagement.		X					
2	High standards and proper management are essential not only for safe and effective		X					

	production on a farm but also for the research and teaching of the students.							
3	Ample space should be allotted to meet the needs of each core component, including space for the proper care of animals, special locations for research and teaching, and space for proper maintenance and storage of farm equipment.		X	X		X		PROGRAM ELEMENT
4	SAE and FFA should supplement any classroom instruction.		X	X		X		PROGRAM ELEMENT
5	Agricultural schools should provide SAE and strive to stay current on technologies and best farming practices.		X	X				PROGRAM ELEMENT
6	FFA chapters encourage student interest in agriculture, providing educational outlets, projects and leadership opportunities, and community engagement.		X					
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 2: Backgrounds Research – Principles of Campus Design								
1	Campus designs should be mission-driven to support the institute and provide students with the best educational facilities possible.	X	X					
2	A campus design should encourage open engagement and		X	X	X			

	communication through the creation of formal and informal spaces and a pedestrian-friendly environment.							
3	The design process should identify and utilize placemaking to define the campus.		X					
4	Plans must create a balance between preserving cherished locations and embrace new development or site renewal.		X				X	HISTORY
5	The campus should design for density relative or appropriate to the preestablished size, location, and culture on the campus to enhance the community feeling.		X				X	HISTORY
6	Before any future development or planning occurs, the institute should identify unique or sacred places on campus and design to emphasize these locations.		X				X	HISTORY
7	Follow the Best Practices offered by the Campus Design Research:			X	X	X		
Open Space: Green Spaces								
	Start with green spaces. The main quad, green space, or street is the starting point			X				
	Historically the quadrangle, lawn, or mall is a pedestrian space.			X				

	Create ‘outdoor rooms’ where interaction can occur.			X				
	Include formal and informal spaces (graduation, amphitheaters vs. hangout spaces, residential courtyards).			X				
	Spaces designed to provide opportunities for individual and small group interaction			X				
	The plan surrounds and frames these places with buildings.			X		X		
	Amphitheater spaces are best when surrounded by greenery and landscaping utilizing the sloping landscape.			X				
Open Space: Landscapes				X				
	Coherent, consistent, and unified landscapes help establish the vision of the institute.			X				
	Develop a landscape master plan.			X				
	Trees and lawns are standard for campus landscapes.			X				
	Helps to improve survival, a mixture of hardy native deciduous species is preferred (50 feet on center, at least 50 feet in height minimum).			X				
	Make site selection decisions around buildings based upon the context of the campus plan and landscape framework.			X		X		

	Establish a consistent plant palette and guide to materials.			X				
	Use plantings to abate noise, control dust, divert traffic, secure boundaries, create privacy, and arrange pleasurable views.			X				
Circulation: Pedestrian Circulation								
	Designed paths to be functional, convenient, accessible, free of vehicles, and provide direction between buildings.				X			
	Paths should provide a beautiful and pleasing journey between destinations.				X			
	Paths entry and exit should be ADA accessible.				X			
	Scale sidewalks and paths for the desired use and volume; pedestrian vs. bicycle, individual vs. group.				X			
	Separate pedestrian traffic from vehicular traffic, for safety and ease of travel for both.				X			
Circulation: Vehicular Circulation								
	Establish a balance between curbed and natural areas on campus. Curbing increases stormwater runoff but increases the appeal and signifies importance.			X	X			
	Where pertinent, provide proper stormwater management strategies			X	X			

	when creating curbs and gutters.							
	Large parking facilities must be located in satellite areas and have well-managed circulation that collaborates with mixed-use, ensures safety, and contributes to the campus image.				X			
	Parking must be screened and include trees, shrubs, paving, and lighting for safety.			X	X			
	Providing parking spaces close to buildings or in the center forces facilities further apart, thereby making walking less feasible and deters from the community atmosphere creating places where no one wants to linger.				X			
	Distant parking lots do not serve staff who may require proximity to classrooms, therefore, providing minimal parking for such cases may be necessary.				X			
	Within the campus core limit parking to only the necessary: safety, services, ADA, and visitors.				X			
	Consider restrictions for students to having vehicles on campus or limit the availability based on class status or prerequisites of driver's safety classes.		X		X			

	Consider deliveries and garbage truck's needs.				X			
Circulation: Signage and Lighting								
	Develop a well-organized system and style to create uniformity across campus.				X			
	Facilitate transitions between driving and walking in districts.				X			
	Proper vehicular signage is vital to the organization of the campus.				X			
	Paths must be safe and well light for evening use.				X			
	In the pedestrian area, utilize smaller poles (12-18 feet tall)				X			
Buildings: Locations								
	Buildings drawing large numbers of visitors should be situated on the periphery of the central campus to provide adequate parking.					X		
	Large campus residential buildings should be proposed in the periphery.		X			X		
Buildings: Patterns								
	Restrictions in these areas need to be established early in the planning process and maintained to ensure campus uniformity and integrity.		X			X		

	Reinforce the identity of the campus by creating the character and focal points.		X			X	X	HISTORY
	Building Massing – emulate the current overall or in groups.					X		PATTERNS
	Building Height – limit the height in desirable locations.					X		
	Rooflines – follow similar styles (height, slope) to ensure uniformity.					X		
Building: Materials								
	Reuse buildings meant to last for centuries					X		HISTORY
	New construction should blend with used styles or most dominant style and balanced with a sense of proportion.					X		
	Utilize material that binds the generations visually and symbolically to create a unique campus design.					X		*HISTORY*
Buildings: Architectural Design								
	All buildings styles must contribute, retain and reinforce the unity of the campus's original architectural guidelines\principles					X		
	Should reflect but not strictly imitate the massing proportions.					X		
	A variety is appealing; however, do not disrupt the setback patterning or historic edge of facades.					X	X	*HISTORY*

	Avoid exaggerated or excessively large or tiny architecture.					X		
	Fenestration – place windows proportionately and use correct styles.					X		
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 2: Backgrounds Research – Principles of Campus Design Case Studies								
1	The institute should incorporate The Secretary of the Interior's Standards for Preservation Planning and the Treatment of Historic Properties into the day-to-day operations of maintenance and reference them whenever future planning is necessary.		X				X	HISTORY
2	In the design process, identify any zones or districts worthy of preservation, especially around the historic core of the campus.		X				X	HISTORY
3	When possible, preserve, when not, integrate additions or changes with the campus agricultural heritage through displays or signage.		X				X	HISTORY/OVERARCHING?
4	Through preservation, help to create a sense of pride in the campus's history and uniqueness.		X				X	HISTORY

5	Integrate the preservation development design guidelines listed:		X				X	HISTORY
Buildings								
	Respect the massing and proportions of the existing buildings in each district, such as setbacks, fenestration patterns, detailing.					X	X	HISTORY
	New development and architecture designs should not mimic the existing, which might create a false sense of history, but instead honor it through use of its architectural style's components and elements.					X	X	HISTORY
	Ramps should be designed to have the least possible visual impact, utilizing an L-shape or U-shape when needed along historic buildings.					X	X	HISTORY
	Use short landscape walls and plantings to lessen the visual impact of ramps and reduce the visual profile.			X	X?	X	X	
Landscapes								
	Protect important landscape views when infilling and developing the campus.			X			X	
	Mounted signs and plantings may change in design over the years; however, the scale			X			X	

	should not be larger than its present prominence.							
	Develop a Landscape Plan to establish the principles of development of the major pedestrian malls, open spaces, parking lot designs, outdoor spaces, and landscape features.			X			X	
	Include a palette for retaining walls, benches, shade structures, and other pedestrian amenities.			X			X	
	Preserve valuable shade trees and protect these trees during times of new construction.			X			X	
6	Establish a hierarchy of historical importance to help focus and direct limited preservation resources and funding to critical locations.						X	TO DO LIST
7	Develop individualized preservation plans for the historic locations and character-defining areas to ensure proper care and maintenance.						X	TO DO LIST
8	Reinforce the pedestrian mall as a campus organizing principle and framework for future academic expansion		X	X				
9	Build additional residence halls to maintain the 30% resident student to commuter student ratio							???
10	Modify vehicular circulation to create a coherent pattern and to				X			

	minimize pedestrian conflicts							
11	Concentrate parking around the perimeter of the campus core				X			
12	Improve the quality and definition of open spaces			X				
13	Preserve farmland to support ABAC's agricultural mission.		X	X				
14	Adopt a design philosophy that prioritizes the campus's mission and vision.	X						
15	Integrate the future goals and design guidelines listed.		X					
	Always prioritize pedestrian traffic.				X			
	To ensure a pedestrian-friendly core, parking will be concentrated on the perimeter.				X			
	A small amount of parking on the interior is necessary for critical populations, handicap, and visitors.				X			
	Avoid parking lots near historic and campus entry.				X			
	Parallel parking along the circle.				X			
	Approximately a ten-minute walking distance between academic buildings is essential to creating a compact campus.				X			
	Parking is regulated to the perimeter.				X			

	If necessary, to conserve precious farmland, parking lots must be built along the highway, with a fifty-foot buffer to minimize the 'visual impact.'			X	X			
	Utilize trees along the pedestrian mall to link buildings			X				
	Provide a directional network of pedestrian paths to link the main areas of the campus				X			
	Parking near historic buildings should be behind and out of view				X			
	Maintain the vegetated core.			X				
	In the quadrangle, maintain substantial green space, lawn, and shade.			X				
	Reinforce the frame of the quad-core with new academic, laboratory, and student service buildings.					X		
16	Develop the campus to provide full amenities necessary for the students.		X					
17	Integrate the takeaways observed from the campus plan listed:		X					
	There is a well-established clustering of building and structure types and uses, as seen through the maps color coding.					X		
	The core of the campus radiates outward from the great lawn, which is			X				

	surrounded by the critical structures of the school.							
	Buffer zones are identified along the periphery to screen the campus from the highway and outlying roads.			X				EDGES!
	Parking is predominately located on the periphery and clustered for use by multiple buildings except for necessary areas for staff, ADA, and service use. In these cases, they are located on the opposite side of the buildings from pedestrians and therefore hidden from view.				X			
	Sports fields are also on the periphery located adjacent to large parking for dual purpose use.			X	X			
	Dormitories are located on the exterior of the main campus.					X		
	The plan has addressed multiple entries and viewpoints of the campus from the exterior.				X			
	Student active areas are confined and protected during traffic times of the day on campus and more open at slower times.			X				
	The plan establishes the potential for future expansion through the addition of access roads and new drop-off routes.				X			

Review of Takeaways by Subsection		Categorization						Comments/Suggestions
		D.P.	G.P.	Best Practices				
				OS	C	B	P	
Chapter 3: JDLH's New Direction – Feasibility Study								
1	The farming and forestry operations should be maintained and developed and maintained as a means of financially and educationally supporting the school, students, and property as it returns to addressing de la Howe's original intent of agricultural education.		X					
2	The education and residency programs can operate as a magnet school of agriculture and has the potential to operate as a South Carolina Governor's School of Agriculture.	X						
3	The education program should utilize the latest methods of agricultural education, including classroom instruction, SAE, and FFA experiences, and the property should develop to meet the needs of this agricultural education program.		X					
4	These educational methods will require indoor and outdoor educational spaces, project and experimental spaces, and demonstration spaces for both the students and the		X	X		X		

	community to allow for experimental learning practices and new crop growth.							
5	The school has closed for modifications to its current facilities and operations; however, as the school grows, future additions to the school's facilities will be needed in order to support the school's educational operations.		X					
6	The school will initially serve approximately 100 day and residential students in its early years, eventually seeking to serve up to 325 students within six years		X?					GENERALIZATION?
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
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				OS	**C**	**B**	**P**	
Chapter 3: JDLH's New Direction – JDLH Charrette								
1	Produced a preliminary conceptual design and community feedback to improve the design.		X?					GENERALIZATION?
2	The charrette provided a preliminary list of potential programmable elements to include in the final design based upon feedback from the JDLH community.		X?					GENERALIZATION?
3	Helped to initiate a design approach that focused on preserving community and historically sacred locations on campus.		X					

4	Established a breakdown of the campus into zones based upon commonalities, thereby allowing the design to be completed in manageable chunks rather than in its entirety while keeping uniformity across the site.		*X*					
5	The charrette provided community input that revealed sacred places on campus and an understanding of the concerns about the school's future mission and vision.		X					VERY IMPORTANT
6	Revealed areas of research and analysis that would be needed to successfully develop guiding principles, including background information on cultural landscapes, historical preservation, student housing, parking, and the addition of new educational facilities as well as a more in-depth evaluation of the campus.		X?					GENERALIZATION?
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 4: Existing Conditions – Property Description								
1	The natural beauty and remoteness of the location helps to define the campus history and		X					

	vision as an agricultural school.							
2	The soft edges that aid in the transition to the campus core should be maintained.		X					
3	The Central Mall area should be maintained as the symbolic inner core of the school.		X					
Review of Takeaways by Subsection		**Categorization**						**Comments/Suggestions**
		D.P.	**G.P.**	**Best Practices**				
				OS	**C**	**B**	**P**	
Chapter 4: Existing Conditions – Campus Core Description, Analysis, and Evaluation								
1	The agricultural facilities are located in close proximity, within walking distance, to the school buildings, which is beneficial for educational use and opportunities.		X		X			
2	It is essential to establish zones or districts for the planning and development of the campus to ensure unity within areas on campus and one campus as a whole.		X					
3	The school should maintain vegetated and building buffers to Highway 81 for security and as it assists in maintaining the natural edges of the campus.			X	X			
4	Consideration for improvements should be prioritized to the high-		X	X				

	density pedestrian areas first.							
5	It is beneficial to retain preexisting locations of open space, large and small, formal and informal, for activities, events, and ceremonies if possible.			X				
6	The campus has well-established specimen trees that need to be maintained for their cultural significance.		X	X				
7	During the future development of the campus, the school should take into consideration stormwater drainage from the site and implement proper stormwater management strategies, especially around channels, streams, and ponds.			X	X			
8	Follow building construction patterns already established and should be maintained:		X			X		
	Building materials should be of similar material and color;					X		
	Buildings should follow preestablished setbacks patterns appropriate for each area, or be justified accordingly at junctions;					X		
	Buildings spacing distances should be maintained whenever possible;					X		
	Building placement should be oriented to ensure a natural view;					X		

	Buildings should never exceed three-stories, and if over one-story buildings should take advantage of the natural topography for placement to minimize its height;					X		
	Future infill where appropriate following the above precedents.					X		
	Exceptions to these patterns can be made when establishing a hierarchy of importance with placemarkers.					X		
9	Pedestrian sidewalks are essential within the campus core and should be extended outward to a ten-minute walking distance.				X			
10	Signage, directional wayfinding, and pedestrian priority must be established.				X			
11	Entrance to the property and campus must be clearly marked and secure for safety purposes.				X			
12	Major roads on campus must be well-kept, driveways for housing added, and proper curbs, gutters, and stormwater management should be considered in more formal or culturally significant locations.				X			
13	Parking for high traffic areas is essential.				X			
14	Additional parking for visitors, guests, and students will be needed.				X			

15	The campus has large open spaces around its peripheral and smaller locations within that can be utilized for potential infill; however, whenever possible, newer additions should follow pre-established patterns in the area.					X		